MERCOLA
BREAKING NEWS | CENSORED LIBRARY PRO | PETE | LOGIN

Free speech is fleeting, this content will disappear in: 0 : 22 : 42 (DAYS HOURS MINUTES) Learn More

Censored Library CLICK HERE

Do You Know the Wide-Ranging Health Benefits of Selenium?

Articles by Dr. Joseph Mercola | Fact Checked

STORY AT-A-GLANCE

- Selenium is a powerful antioxidant that helps reduce the signs of aging you see and feel in your body, which is the result of molecular and immune system changes, increased susceptibility to environmental stressors, metabolic imbalance and disease
- Supplementing with selenium when levels are within normal limits does not prevent heart disease. However, data show people with low serum levels are at higher risk for cardiovascular disease, indicating optimal levels are necessary but more is not better
- An animal model shows selenium may help protect against obesity, which is a significant trigger for many chronic diseases. Low selenium levels may also be linked to age-related cognitive decline and are associated with worse COVID outcomes
- Signs of deficiency include hair loss, fatigue, frequent sickness, cognitive decline and muscle weakness. Brazil nuts are the best food source for selenium as just six to eight nuts provide 100% of your daily allowance

Selenium is an essential trace mineral that plays a unique and important role in a variety of biological functions. Your body cannot make selenium, so its important to get it from your food. It's a major component in more than two dozen proteins that play crucial roles in a variety of functions, including thyroid hormone metabolism, DNA synthesis and reproduction.[1]

Selenium is also an antioxidant, which means it helps protect the body against free radicals and reactive oxygen species (ROS). It exists in two forms: inorganic and organic, both of which are found in dietary sources — including the organic form in animal tissue.

Like most compounds, your body requires an optimal amount of selenium, which means that more is not better. There is some evidence to suggest that high serum concentrations can adversely affect glycemic control.[2] This means that individuals with high levels of these signs are at risk for Type 2 diabetes should measure serum concentrations before considering using a selenium supplement.

When your body has optimal levels of selenium, it can help improve biological functioning, which in turn has a positive effect on antiaging, heart disease, cognitive decline and viral load progression.

Antioxidant Has Antiaging Benefits

The signs of aging you can visibly see in your skin and experience in your body are the result of molecular and immune system changes, increased susceptibility to environmental stressors, metabolic imbalance and disease that may happen as you age.[3] These effects are the result of an imbalance between oxidative defense and ROS damage. Stem cell exhaustion, epigenetic alterations and changes in mitochondrial renewal also affect aging.

While signs of aging are common, there are steps you can take to help mitigate these effects. Maintaining optimal levels of nutrients and micronutrients is one of those steps. A review in 2019 showed the effect selenium has on the aging process occurs in part through the role it plays in selenoproteins, which are necessary for the expression of several important antioxidants.[4]

Selenium is used in the expression of five separate glutathione peroxidases,[5] which are responsible for reducing damage from ROS. These and other selenoproteins consequently play powerful roles as antioxidants, reducing the inflammation triggered by ROS and prolonging telomere length, which is the protective cap on the end of your chromosomes.[6]

When telomeres shorten to a critical length after division, the cells either die or stop dividing. These actions play a vital role in aging and some researchers suggest that supplementing with selenium, especially in the elderly may be of "great significance" as a strategy for the prevention of age-related diseases.[7]

Low Selenium Raises Risk of Heart and Thyroid Disease

Obesity is a significant risk factor for heart disease. One study published in March 2021[8] found that adding selenium to the diet in an animal model helped protect against obesity and increased the healthy lifespan of the animals. The researchers were also interested in whether selenium could have the same beneficial effect on metabolism as restricting the amino acid, methionine.

Selenium supplementation in this animal model provided the same protection against weight gain as restricting methionine, and dramatically reduced levels of the aging-promoting hormones IGF-1 and leptin. The results suggested that supplementing with selenium had nearly the same effect as a diet restricted in methionine.[9] But selenium may also have a direct impact on your cardiovascular system.

Scientists have been studying the effect of selenium on the cardiovascular system for decades, after finding that the disease rate more prevalent in areas of the world where there were low serum selenium concentrations, such as in eastern Finland.[10]

One meta-analysis[11] in 2006 looked at observational studies that evaluated selenium serum concentrations and found they were inversely associated with the risk for coronary heart disease. The important aspects of this study is the researchers measured serum concentration of selenium and did not rely on an evaluation of supplementation alone.

In 2013, a Cochrane Database Systematic Review[12] concluded that there was limited evidence to support selenium supplementation to prevent heart disease. However, data from the studies showed most participants had a baseline or mean selenium serum concentration between 70 and 150 nanograms per milliliter (ng/mL), which is the normal concentration found in human blood serum.[13]

In other words, it appeared supplementing with selenium was not effective when blood serum concentrations were already within the normal value. Another study[14] published in 2020 also evaluated serum selenium levels and found those in the high range of the reference value had a decreased risk for cardiovascular disease and mortality.

Optimal levels of selenium may also help individuals experiencing heart failure. One study[15] found serum levels of selenium were independently associated with severe inflammation in patients with heart failure and deficiency was linked to a 50% higher mortality rate.

Thyroid hormones also influence the cardiovascular system, and may induce or worsen heart disease, including heart failure and atherosclerotic vascular disease.[16] Several studies have demonstrated that supplementation with selenium in hyper- and hypothyroidism is associated with improvement.[17][18]

Age-Related Cognitive Decline May Be Linked to Low Selenium

Preventing cognitive impairment in the elderly is a significant public health challenge. One meta-analysis[19] that gathered data from Europe, Australia and the Americas found that the incidence of mild cognitive impairment per 1,000 person-years was 40.94 in ages 60 to 64 and 60.1 in ages 85 and older.

According to the Alzheimer's Association, more than 6 million Americans are currently living with Alzheimer's and 1 in 3 seniors dies with at least one form of dementia.[20] One link may be selenium as it is well understood that serum concentrations of selenium generally decline with age.

One longitudinal study[21] found that decreases in plasma selenium were associated with declines in neuropsychological function in aging people. Another study[22] found lower serum levels of selenium were associated with decreased performance on neurological testing in older adults.

As serum deficiencies occur, the brain retains selenium the longest, which has suggested that it plays a vital role in brain function. A review of nine years of data[23] has suggested that maintaining optimal selenium status was important to the neuropsychological function in the elderly.

Low Selenium and Zinc Associated With Worse COVID Outcomes

Selenium and zinc both play a role in supporting your immune system. One of the selenoprotein enzymes, glutathione peroxidase, is an important catalyst in the conversion of glutathione. This in turn reduces damage from reactive oxygen species.[24] When glutathione peroxidase is compromised, the downstream effect is the overproduction of cytokines that can induce a cytokine storm as seen in some COVID-19 infections.

Selenium influences other pathways that affect viral diseases as well. Authors of a paper in Environmental Research[25] note that HIV-1 infections are higher in areas of Africa where the soil is deficient in selenium and testing shows Ebola infections are closely associated with people who are severely deficient in selenium.

Coxsackievirus is a RNA virus that typically causes a mild illness, yet severe infections are found in areas of China where selenium is deficient.[26] The authors have suggested that these pathways influence a possible reaction to a COVID-19 infection and theorize that supplementing with selenium during an active infection may help reduce damage to the endothelial cells.

Other studies in China[27] and Germany[28] have demonstrated there's a positive relationship between the survival rate for people with active COVID-19 infections and selenium levels.

One study[29] published in 2021 sought to identify predictive markers doctors could use to better stratify COVID-19 patients on admission to the hospital. In this study, researchers measured serum levels of zinc, iron, copper and selenium. Selenoprotein P levels were also measured, which requires selenium for its expression.

The researchers found that patients admitted with cancer have significant deficits in selenium and zinc. Those of the few patients with the lowest levels of iron, also also had profound selenium and zinc deficits, deed during the study. Analysis of the biomarkers found most hospitalized patients had particularly low levels of selenium and zinc.

When patients with comorbidities were analyzed, they found a pronounced deficit in iron, zinc and selenium and a higher chance of survival in cancer patients with higher levels of selenium. The researchers concluded that the data confirmed[30]

> "... an insufficient 3x (total 3x and SELENOP) and 2x status at admission to the hospital is associated with an exceptionally high mortality risk and severe disease course with COVID-19.
>
> In view of the predictive accuracy of 3x and Zn deficiency as mortality risk factor at hospital admission, supplemental 3x and Zn supply should be considered to support the immune system, in particular for patients with inflammation-related comorbidities like cancer or diabetes mellitus."

Signs of Deficiency and Food Choices Rich in Selenium

Selenium is found in the soil and should concentrate in plant foods. However, experts estimate that up to 1 billion people globally may be deficient from inadequate intake.[31]

One paper published in Environmental Research[32] cited a World Health Organization report that found over 40 countries where the soil is deficient in selenium. Some of the lowest levels are found in New Zealand, Slovakia, Finland and sub-Saharan Africa.

People who have a deficiency in selenium are at higher risk of conditions that affect the endocrine system, cardiovascular system, immune system and reproductive system and that may affect mood and behavior.

Although it's necessary to be tested to determine if you are deficient, several symptoms may indicate you aren't getting enough selenium in your diet. These can include:[33][34]

Hair loss	Fatigue	Weight gain
Sick more often	Greater oxidative stress	Shortness of breath
Cognitive decline	Muscle weakness	

I recommend getting as many of your essential vitamins, minerals and elements from your diet as possible. The recommended daily allowance for zinc ranges from 2 to 8 mg for children to 11 mg for men and women over the age of 19.[35] Food sources include oysters, pasture-raised beef, dark meat chicken, pumpkin seeds and cashews.

The recommended daily allowance for selenium ranges from 15 micrograms (mcg) for infants to 55 mcg for men and women over 19 years.[36] The best food sources of selenium are Brazil nuts. Just six to eight nuts deliver 544 mcg, or 989% of your daily allowance. Other sources include sardines, pasture-raised beef, turkey, chicken and pasture-raised eggs.

My #1 Bestselling Book – Now on Paperback!

My latest book, "The Truth About COVID-19," is an excellent handbook. After thousands of reviews it has a nearly perfect 5-star rating, so grab your copy today before it's too late!

The Truth About COVID-19
by Dr. Joseph Mercola
★★★★★
6,116 ratings

ORDER NOW

Sources and References

4 Previous Articles | Next Article 2

Mental Health Crisis Driven by Public Health Policy Trauma | 6 Tastes so Good, but It's Preventing Your Loved Ones!

Hide Comments (18)

Post your comment

Sort Comments by: Top Rated | Newest | Oldest | Top Poster

Guillermo
Joined As of 2/20/15 4:47:48 AM
Add as Friend | Send Message

Interesting report on the importance of the human diet. In this review, the importance of land trace element is also carried out. In the Mediterranean Sea, there are many contaminants, such as heavy metals, pesticides, hydrocarbons, and plastics, which affect the tissues of the body and perform various functions. These major functions of the contaminating enzymes have been classified: glutathione peroxidases, thioredoxin reductases, and iodothyronine deiodinases, and other individual selenoproteins. These specific proteins are responsible for thyroid hormone control, fertility, the aging process, and immunity, but their key function is to maintain a redox balance of cells.

In addition, taking into account world news and the current SARS-CoV-2 virus pandemic, the impact of selenium on the course of COVID-19 is also analyzed. The impact of selenium on cancer has based on clinical trials, systematic reviews, and meta-analyses is also discussed. In addition, this review analyzes the possible mechanisms of action of selenium that prevent the development of cancer. The antioxidant activity results in a reduction in the production of reactive oxygen species (ROS) and a decrease in cell damage caused by free radicals. Selenium, in the form of selenium, is a chemical form of the essential micronutrient that has been determining its effectiveness in preventing DNA damage in cells.

It turns out that Goitrin exhibits toxic properties against DNA damage. Supplementation of people who already have an adequate intake with additional selenium increases the risk of type 2 diabetes. The crucial factor that needs to be emphasized regarding the health effects of selenium is the nonlinearity it shaped link with the condition, while additional selenium intake may benefit those with low status, those with adequate to high status may be negatively affected and should not take selenium supplements.

Reply | Mark as Spam | Posted On: 4/21/2022 5:16:20 AM

Guillermo
Joined As of 2/20/15 4:47:48 AM
Add as Friend | Send Message

Selenium is a powerful antioxidant that helps reduce the signs of aging you see and feel in your body, which is the result of molecular and immune system changes, increased susceptibility to environmental stressors, metabolic imbalance and disease. Selenium is an essential trace mineral that plays a unique and important role in a variety of biological functions. Your body cannot make selenium, so its important to get it from your food. It's a major component in more than two dozen proteins that play crucial roles in a variety of functions, including thyroid hormone metabolism, DNA synthesis and reproduction. Selenium is also an antioxidant, which means it helps protect the body against free radicals and reactive oxygen species (ROS). It exists in two forms: inorganic and organic, both of which are found in dietary sources — including the organic form in animal tissue. Like most compounds, your body requires an optimal amount of selenium, which means that more is not better. There is some evidence to suggest that high serum concentrations can adversely affect glycemic control. This means that individuals with high levels of these signs are at risk for Type 2 diabetes should measure serum concentrations before considering using a selenium supplement. When your body has optimal levels of selenium, it can help improve biological functioning, which in turn has a positive effect on antiaging, heart disease, cognitive decline and viral load progression. Antioxidant Has Antiaging Benefits The signs of aging you can visibly see in your skin and experience in your body are the result of molecular and immune system changes, increased susceptibility to environmental stressors, metabolic imbalance and disease that may happen as you age. These effects are the result of an imbalance between oxidative defense and ROS damage. Stem cell exhaustion, epigenetic alterations and changes in mitochondrial renewal also affect aging. While signs of aging are common, there are steps you can take to help mitigate these effects. Maintaining optimal levels of nutrients and micronutrients is one of those steps. A review in 2019 showed the effect selenium has on the aging process occurs in part through the role it plays in selenoproteins, which are necessary for the expression of several important antioxidants. Selenium is used in the expression of five separate glutathione peroxidases, which are responsible for reducing damage from ROS. These and other selenoproteins consequently play powerful roles as antioxidants, reducing the inflammation triggered by ROS and prolonging telomere length, which is the protective cap on the end of your chromosomes. When telomeres shorten to a critical length after division, the cells either die or stop dividing. These actions play a vital role in aging and some researchers suggest that supplementing with selenium, especially in the elderly may be of "great significance" as a strategy for the prevention of age-related diseases. Low Selenium Raises Risk of Heart and Thyroid Disease Obesity is a significant risk factor for heart disease. One study published in March 2021 that adding selenium to the diet in an animal model helped protect against obesity and increased the healthy lifespan of the animals. The researchers were also interested in whether selenium could have the same beneficial effect on metabolism as restricting the amino acid, methionine. Selenium supplementation in this animal model provided the same protection against weight gain as restricting methionine, and dramatically reduced levels of the aging-promoting hormones IGF-1 and leptin. The results suggested that supplementing with selenium had nearly the same effect as a diet restricted in methionine. But selenium may also have a direct impact on your cardiovascular system. Scientists have been studying the effect of selenium on the cardiovascular system for decades, after finding that the disease rate more prevalent in areas of the world where there were low serum selenium concentrations, such as in eastern Finland. One meta-analysis in 2006 looked at observational studies that evaluated selenium serum concentrations and found they were inversely associated with the risk for coronary heart disease. The important aspects of this study is the researchers measured serum concentration of selenium and did not rely on an evaluation of supplementation alone. In 2013, a Cochrane Database Systematic Review concluded that there was limited evidence to support selenium supplementation to prevent heart disease. However, data from the studies showed most participants had a baseline or mean selenium serum concentration between 70 and 150 nanograms per milliliter (ng/mL), which is the normal concentration found in human blood serum. In other words, it appeared supplementing with selenium was not effective when blood serum concentrations were already within the normal value. Another study published in 2020 also evaluated serum selenium levels and found those in the high range of the reference value had a decreased risk for cardiovascular disease and mortality. Optimal levels of selenium may also help individuals experiencing heart failure. One study found serum levels of selenium were independently associated with severe inflammation in patients with heart failure and deficiency was linked to a 50% higher mortality rate. Thyroid hormones also influence the cardiovascular system, and may induce or worsen heart disease, including heart failure and atherosclerotic vascular disease. Several studies have demonstrated that supplementation with selenium in hyper- and hypothyroidism is associated with improvement. Age-Related Cognitive Decline May Be Linked to Low Selenium Preventing cognitive impairment in the elderly is a significant public health challenge. One meta-analysis that gathered data from Europe, Australia and the Americas found that the incidence of mild cognitive impairment per 1,000 person-years was 40.94 in ages 60 to 64 and 60.1 in ages 85 and older. According to the Alzheimer's Association, more than 6 million Americans are currently living with Alzheimer's and 1 in 3 seniors dies with at least one form of dementia. One link may be selenium as it is well understood that serum concentrations of selenium generally decline with age. One longitudinal study found that decreases in plasma selenium were associated with declines in neuropsychological function in aging people. Another study found lower serum levels of selenium were associated with decreased performance on neurological testing in older adults. As serum deficiencies occur, the brain retains selenium the longest, which has suggested that it plays a vital role in brain function. A review of nine years of data has suggested that maintaining optimal selenium status was important to the neuropsychological function in the elderly. Low Selenium and Zinc Associated With Worse COVID Outcomes Selenium and zinc both play a role in supporting your immune system. One of the selenoprotein enzymes, glutathione peroxidase, is an important catalyst in the conversion of glutathione. This in turn reduces damage from reactive oxygen species. When glutathione peroxidase is compromised, the downstream effect is the overproduction of cytokines that can induce a cytokine storm as seen in some COVID-19 infections. Selenium influences other pathways that affect viral diseases as well. Authors of a paper in Environmental Research note that HIV-1 infections are higher in areas of Africa where the soil is deficient in selenium and testing shows Ebola infections are closely associated with people who are severely deficient in selenium. Coxsackievirus is a RNA virus that typically causes a mild illness, yet severe infections are found in areas of China where selenium is deficient. The authors have suggested that these pathways influence a possible reaction to a COVID-19 infection and theorize that supplementing with selenium during an active infection may help reduce damage to the endothelial cells. Other studies in China and Germany have demonstrated there's a positive relationship between the survival rate for people with active COVID-19 infections and selenium levels. One study published in 2021 sought to identify predictive markers doctors could use to better stratify COVID-19 patients on admission to the hospital. In this study, researchers measured serum levels of zinc, iron, copper and selenium. Selenoprotein P levels were also measured, which requires selenium for its expression. The researchers found that patients admitted with cancer have significant deficits in selenium and zinc. Those of the few patients with the lowest levels of iron, also also had profound selenium and zinc deficits, deed during the study. Analysis of the biomarkers found most hospitalized patients had particularly low levels of selenium and zinc. When patients with comorbidities were analyzed, they found a pronounced deficit in iron, zinc and selenium and a higher chance of survival in cancer patients with higher levels of selenium. The researchers concluded that the data confirmed "... an insufficient 3x (total 3x and SELENOP) and 2x status at admission to the hospital is associated with an exceptionally high mortality risk and severe disease course with COVID-19. In view of the predictive accuracy of 3x and Zn deficiency as mortality risk factor at hospital admission, supplemental 3x and Zn supply should be considered to support the immune system, in particular for patients with inflammation-related comorbidities like cancer or diabetes mellitus." Signs of Deficiency and Food Choices Rich in Selenium Selenium is found in the soil and should concentrate in plant foods. However, experts estimate that up to 1 billion people globally may be deficient from inadequate intake. One paper published in Environmental Research cited a World Health Organization report that found over 40 countries where the soil is deficient in selenium. Some of the lowest levels are found in New Zealand, Slovakia, Finland and sub-Saharan Africa. People who have a deficiency in selenium are at higher risk of conditions that affect the endocrine system, cardiovascular system, immune system and reproductive system and that may affect mood and behavior. Although it's necessary to be tested to determine if you are deficient, several symptoms may indicate you aren't getting enough selenium in your diet. These can include: Hair loss Fatigue Weight gain Sick more often Greater oxidative stress Shortness of breath Cognitive decline Muscle weakness I recommend getting as many of your essential vitamins, minerals and elements from your diet as possible. The recommended daily allowance for zinc ranges from 2 to 8 mg for children to 11 mg for men and women over the age of 19. Food sources include oysters, pasture-raised beef, dark meat chicken, pumpkin seeds and cashews. The recommended daily allowance for selenium ranges from 15 micrograms (mcg) for infants to 55 mcg for men and women over 19 years. The best food sources of selenium are Brazil nuts. Just six to eight nuts deliver 544 mcg, or 989% of your daily allowance. Other sources include sardines, pasture-raised beef, turkey, chicken and pasture-raised eggs.

Reply | Mark as Spam | Posted On: 4/21/2022 5:18:01 AM

Guillermo
Joined As of 2/20/15 4:47:48 AM
Add as Friend | Send Message

It also increases the body's immune response and reduces inflammation. This is possible thanks to the stimulation of cytokines T lymphocytes and macrophages, proliferation of NK cells and differentiation into cytotoxic effector cells and an increase in their activity. Selenium also has a bactericidal effect against Gram-, Gram+ and mycobacterial pathogens, inhibits human immunodeficiency virus-1 (HIV) replication and cytopathic activity of cells in the apoptosis, changes in modulation of the regulatory pair of genes in HIV, histone modifications, interference with one-carbon metabolism, modulation of cell multiplication, suppression of angiogenesis, reduction of enzymes involved in the second phase of biotransformation of xenobiotics, prevention of toxic effects of heavy metals on cells and regulation of estrogen expression as well as endogenous hormone receptors on highlighted.

Figure 7. Possible mechanisms of cancer chemoprevention by selenium. www.mdpi.com/...1661 (2021) It is very important to maintain an adequate level of the both deficiency and excess can be dangerous to human health. For biomarkers of selenium status in the body, measurement of the activity of selenoproteins such as glutathione peroxidase 3 and selenoprotein P in plasma prove valuable because a decrease in their activity directly indicates a deficiency of this trace element. Be it based in food or supplements, selenium is a micronutrient that is essential for human health and is found in both inorganic and organic forms and more bioavailable than inorganic compounds, such as selenates or selenites. Selenium-rich foods www.healthline.com/.../selenium-foods -greatest-sorc/ ...Selenium-foods

Mark as Spam | Posted On: 4/21/2022 5:19:01 AM

Guillermo
Joined As of 2/20/15 4:47:48 AM
Add as Friend | Send Message

Low serum Se concentration is associated with an increased risk of prostate cancer. In addition, there are reviews that Se also reduces the risk of other cancers, including lung, colorectal, liver, and bladder cancer. Selenium deficiency is also linked to the risk of CVD (pg 6) in Keshan disease (pg 8). Many studies, both in animals and humans, have shown that low Se (as a result of low Se intake) correlates with an increased risk of developing cancer. In these studies, an antioxidant effect of Se was observed that, so, an inverse relationship between Se consumption and the incidence of cancer, when this element was taken in supraoptimal doses in a range of 250-300 µg/day.

www.scielo.br/.../...2016.1281.tt.pdf 2016 (PDF) ncbi.nlm.nih.gov/.../pmc-6375-latest (2016) pubmed.ncbi.nlm.nih.gov/24663404 (2014) pubmed.ncbi.nlm.nih.gov/28403440 (2015) Ms.spongecake.com/...1410001 (2014) Excessive doses of Se also cause endocrine disturbances in the activity of thyroid hormones, growth hormones (GH), and insulin like growth factors (IGF-1). A meta-analysis showed that excessive Se intake increases the risk of DM2. pubmed.ncbi.nlm.nih.gov/7471802/ (2000) Ms.mdpi.com/...1661 (2021)

Mark as Spam | Posted On: 4/21/2022 5:19:06 AM

Guillermo
Joined As of 2/20/15 4:47:48 AM
Add as Friend | Send Message

There is also evidence that Se deficiency weakens the immune system (or the proper functioning of the nervous system. Selenium deficiency causes immune disturbances leading to increased susceptibility to infections and parasitic control. There is some evidence that selenium may modulate the pathology that accompanies chronic inflammatory diseases in the intestine and liver, as well as in inflammation-associated cancers. Selenium deficiency and suppression of selenoprotein expression have been linked to higher levels of inflammatory cytokines in a variety of tissues, including the gastrointestinal tract, uterus, mammary gland tissues.

It also significantly increases lymphocyte activity T and NK cells. Too low serum Se levels were associated with poorer mood and increased anxiety, depression, and fatigue. pubmed.ncbi.nlm.nih.gov/...2016 (2016) pubmed.ncbi.nlm.nih.gov/...0000877 (2014) Epidemiological studies have suggested an inverse association between selenium status and the risk of colorectal, prostate, lung, bladder, skin, esophageal, and gastric cancer. Low Se is a Cochrane review of studies of selenium and cancer prevention, compared to the lowest selenium category, the highest tertiles category had a 31% lower risk of cancer and a 45% lower risk of cancer mortality, as well as a 33% lower risk of cancer incidence. Low Se is also a risk factor for cancer of prostate.

www.ncbi.nlm.nih.gov/books/NBK545684/table/ch3.t3/?report=objectonly ...Due to its effects on DNA repair, synthesis, and the endocrine and immune systems, as well as other mechanisms, including its antioxidant properties, selenium could play a role in cancer prevention in complex ways.

Mark as Spam | Posted On: 4/21/2022 5:19:22 AM

Guillermo
Joined As of 2/20/15 4:47:48 AM
Add as Friend | Send Message

The discovery of disease-associated polymorphisms in selenoprotein genes has drawn attention to the relevance of selenoprotein to health. Low selenium status has been associated with an increased risk of mortality, poor immune function, cognitive decline, and cancer. Selenium supplementation has been investigated for its potential benefits in cancer, autoimmune thyroid disease, in general prospective studies have shown some benefit of higher selenium status on prostate, lung, colorectal, and bladder cancer risk, but trial findings have been mixed. which probably emphasizes the fact that supplementation will confer benefit only if intake of a nutrient is inadequate. Supplementation of people who already have an adequate intake with additional selenium could increase their risk of type 2 diabetes.

The crucial factor that needs to be emphasized regarding the health effects of selenium in the nutraceuticals U-shaped link with the condition, while additional selenium intake may benefit those with low status, those with adequate to high status may be negatively affected and should not take selenium supplements. pubmed.ncbi.nlm.nih.gov/24663404/ (2014) pubmed.ncbi.nlm.nih.gov/...1410001 (2014) In Table 3, recent and current clinical trials on selenium chemoprevention in breast, colorectal, lung and prostate cancer. www.mdpi.com/...1661 (2021)

Mark as Spam | Posted On: 4/21/2022 5:19:36 AM

jointeve
Joined On 1/5/2021 11:13:54 AM
Add as Friend | Send Message

Gut, this area and others surrounding the Great Lakes are known as short in Selenium. Iodine, & other trace mineral as the usual human series tend to wash these down the drain. The many farms around the area are known for growing crops that are much less than other places. As a side note, the usual yet stream carries the nutrients or pollutants here and many farm offshoots can get built up in our soils, water and bodies.

Mark as Spam | Posted On: 4/21/2022 5:36:39 AM

TxTRA
Joined On 8/3/2019 8:05:28 PM
Add as Friend | Send Message

I worked as a retail chemist specialist in a call center for over 4 years. I spoke with 2 different customers on separate occasions. They both said they are 6-8 Brazil nuts daily or more. Both customers claimed they experienced so much hair loss that they had had street people ask them if they were undergoing chemo. Both said the hair loss had stopped. Both said they experienced extremely high cholesterol levels which was 200 long for a short spell if I feed that I might be getting my documents and not remembered a medical article. I begged doing further research and using caution before taking in high amounts of selenium.

Reply | Mark as Spam | Posted On 4/21/2022 4:18:30 AM

Like Dislike

eiggod8
Joined On 9/18/2009 8:16:13 AM
Add as Friend | Send Message

I recently had a hair analysis done which showed selenium off the chart and way higher than any thing else tested. I was supplementing off and on, but then stopped. My question is, how indicative is the accumulation in hair of the amount actually circulating in the body? How long before a hair analysis shows the change? For instance, how often would Forbidden Healing have the test repeated?

Mark as Spam | Posted On 4/21/2022 6:49:45 AM

Like Dislike

forbiddenhealing
Joined On 2/21/2011 9:51:43 AM
Add as Friend | Send Message

eiggod...You rang?...My lab says every 6 mos to a year on retest. People hesitate to have an initial hair metal/mineral analysis/I did for many years...but it is the best starting point..blood testing doesn't tell the complete story or history. Too much/too little..You will never know. Turnover in tissue levels takes time..I'd say perform the initial, course correct, check back later.

Mark as Spam | Posted On 4/21/2022 7:03:31 AM

Like Dislike

Guillermou
Joined On 4/7/2015 8:47:48 AM
Add as Friend | Send Message

It is very important to maintain an adequate level of Se; both deficiency and excess can be dangerous to human health. For biomarkers of selenium status in the body, measurement of the activity of selenoproteins such as glutathione peroxidase 3 and selenoprotein P in plasma proves valuable because a decrease in their activity directly indicates a deficiency of this trace element. Supplementation of people who already have an adequate intake with additional selenium could increase their risk of type 2 diabetes. The crucial factor that needs to be emphasized regarding the health effects of selenium is the inextricable U-shaped link with the condition; while additional selenium intake may benefit those with low status, those with adequate to high status may be negatively affected and should not take selenium supplements.

pubmed.ncbi.nlm.nih.gov/22381456 (2012) www.hsph.harvard.edu/.../selenium (2016) Excessive doses of Se also cause endocrine disturbances in the synthesis of thyroid hormones, growth hormones (GH), and insulin-like growth factors (IGF-1). A meta-analysis showed that excessive Se intake increases the risk of DM2.

pubmed.ncbi.nlm.nih.gov/16174820 (2005) doi.org/.../dmj.2018.0123 (2019) www.mdpi.com/.../htm (2021) Se is found in the form of organic compounds such as selenomethionine (SeMet) and selenocysteine (Sec) in plant and animal tissues and is more bioavailable than inorganic compounds, such as selenates or selenites. Selenium-rich foods
www.healthline.com/.../selenium-foods greatist.com/.../selenium-foods

Mark as Spam | Posted On 4/21/2022 7:47:03 AM

Like Dislike

sophie124
Joined On 1/8/2010 1:30:22 PM
Add as Friend | Send Message

Brazil nut testing showed different levels of selenium. Difficult to know how much you're getting from Brazil nuts.

Reply | Mark as Spam | Posted On 4/21/2022 1:37:17 AM

Like Dislike

rrealrose
Joined On 11/10/2011 8:59:01 AM
Add as Friend | Send Message

Or to know how much you may need! There is a chart online (or used to be a usgs - US geological survey chart) showing certain areas of the US have been "farmed out" of selenium" most notably the entire east coast, lowlands east of the Appalachian mountain chain. Assume this is the reason heart attacks are more common (prior to this covid-shot fiasco). So eating locally has a different meaning where you live. And a different meaning depending on your food choices, stomach acid level, absorption, and source location for brazil nuts - my local store has a "Woodstock Farms" shortage across nuts and dried fruit right now!

Mark as Spam | Posted On 4/21/2022 6:25:23 AM

Like Dislike

mercola14
Joined On 4/12/2010 2:53:54 PM
Add as Friend | Send Message

1 medium large Brazil nut will provide approx.68-91 mcg. of selenium. The recommended daily allowance of selenium is 55 mcg. of selenium for adults. 6-8 nuts are too many and will exceed the the Tolerable Upper Intake Level (UL) for adults of of 400 mcg. Most natural health doctors recommend 200 mcg. of selenium or no more than 2-3 Brazil nuts.

Reply | Mark as Spam | Posted On 4/21/2022 1:05:27 AM

Like Dislike

Ronald_H
Joined On 7/10/2010 1:38:54 AM
Add as Friend | Send Message

mercola14, I've heard that and my preference was to get selenium from food, so I did exactly that until I also heard the same as what sophie124 just told us based upon soil depletion of selenium in some places and not in others. But, now I want to be sure and measured particularly since too much is toxic and too little has health consequences, so I take a supplement in the form of a capsule for a precise 200 mcg. Otherwise, my strong preference continues to be getting nutrition from food and selenium is an exception. IF a supplier of Brazil nuts could supply documentation of consistency with analysis for accurate selenium consumption, then I would favor getting selenium from specifically their Brazil nuts. RonaldHLevine4548@yahoo.com

Mark as Spam | Posted On 4/21/2022 2:04:31 AM

Like Dislike

oceansplash
Joined On 12/25/2011 9:43:46 AM
Add as Friend | Send Message

I agree!! I have eaten 1 brazil nut a day since Dr. Mercola's last article about this. Don't understand why 6-8 nuts was even brought up in this article. I don't need 900+ the daily amount!

Mark as Spam | Posted On 4/21/2022 6:30:56 AM

Like Dislike

Shepard505
Joined On 7/26/2018 10:09:50 AM
Add as Friend | Send Message

Oregon is the only state I am aware of that allows selenium fertilizer. This has been great for pastures. No more needing to give each sheep or cow. Some areas of the country are very low and a few very high. Selenium deficient newborn lambs actively flop around but are uncoordinated and can't stand up and nurse. Many died before determining the cause. An injection of selenium and they are fine in 24 hours but need help eating before then. Unfortunately selenium fertilizer is not allowed in other states.

Reply | Mark as Spam | Posted On 4/21/2022 10:23:57 AM

Like Dislike

MaryRN
Joined On 11/23/2009 11:22:14 AM
Add as Friend | Send Message

Still the best source for selenium is nature. Many times the things in nature have a companion compound that makes it easier for the body to absorb and utilize the mineral or sustance we need, that does not happen with supplements. MMC88121

Reply | Mark as Spam | Posted On 4/21/2022 5:27:16 AM

Like Dislike

lovestosing6
Joined On 8/26/2013 8:44:35 AM
Add as Friend | Send Message

Ever since Dead Doctors Don't Lie, I've been taking selenium. Go me! hahaha jk

Reply | Mark as Spam | Posted On 4/21/2022 9:44:05 AM

Like Dislike

Post your comment

Previous Article | Next Article

Join the World's #1 Natural Health Newsletter for FREE!
Latest Trustworthy News from Dr. Mercola — delivered straight to your inbox!

Enter your email address | Subscribe Now!

Mercola proudly supports these charities and organizations. View All

Disclaimer: The entire contents of this website are based upon the opinions of Dr. Mercola, unless otherwise noted. Individual articles are based upon the opinions of the respective author, who retains copyright as marked. The information on this website is not intended to replace a one-on-one relationship with a qualified health care professional and is not intended as medical advice. It is intended as a sharing of knowledge and information from the research and experience of Dr. Mercola and his community. Dr. Mercola encourages you to make your own health care decisions based upon your research and in partnership with a qualified health care professional. If you are pregnant, nursing, taking medication, or have a medical condition, consult your health care professional before using products based on this content.

If you want to use an article on your site please click here. This content may be copied in full, with copyright, contact, creation and information intact, without specific permission, when used only in a not-for-profit format. If any other use is desired, permission in writing from Dr. Mercola is required.

Terms & Conditions • Updated Privacy Policy
© 1997-2022 Dr. Joseph Mercola. All Rights Reserved.

TrustedSite CERTIFIED SECURE