

Affordable Anti-Aging

April 2019

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We Are a Product of Our Choices

People do not decide their futures, they decide their habits and their habits decide their futures. — *F. Matthias Alexander*

We are what we repeatedly do. Excellence, therefore, is not an act but a habit. — *Aristotle*

Giving Honor

- Pr. 3:1 My son, do not forget my law, But let your heart keep my commands; 2 **For length of days and long life** and peace they will add to you.
- Pr. 4:20 My son, give attention to my words; Incline your ear to my sayings. 21 Do not let them depart from your sight; Keep them in the midst of your heart. 22 For they are life to those who find them and **health to all their body**.
- Eph 6:1 Children, obey your parents in the Lord, for this is right. 2 “Honor your father and mother,” which is the first commandment with promise: 3 “that it may be well with you and **you may live long on the earth.**”

Life is in the Blood

- Le 17:11 ‘For the life of the flesh is in the blood, and I have given it to you upon the altar to make atonement for your souls; for it is the blood that makes atonement for the soul.’
 - De 12:23 “Only be sure that you do not eat the blood, for the blood is the life; you may not eat the life with the meat.
 - Acts 15:28 For it seemed good to the Holy Spirit, and to us, to lay upon you no greater burden than these necessary things: 29 that you abstain from things offered to idols, from blood, from things strangled, and from sexual immorality. If you keep yourselves from these, you will do well. Farewell.
1. We should protect our blood and promote good **circulation**. We should not eat the blood of animals because the blood is the carrier of hormones.
 2. **Hormones** have the ability to promote youthfulness or speed up the aging process.

Avoid Being Single

- Data from the "Longevity Project" book indicates that men who got and stayed married were likely to live beyond age 70, but less than one-third of divorced men made it to that age.
- Men who never married outlived those who divorced, but not those who stayed married.
- The effect is smaller in women.
- On average, married men live 10 years longer than non-married men, and married women lived about four years longer than non-married women.

<https://www.besthealthmag.ca/best-you/wellness/increase-your-life-expectancy/>

Be Optimistic

- One quality most centenarians share, according to the large-scale New England Centenarian Study, is an ability to not dwell on difficulties.
- Dr. Becca Levy, from the Yale School of Public Health, has found some extraordinary benefits of an optimistic outlook.
- “We found that individuals with a more positive view of aging tended to live **seven-and-a-half years** longer than those with more negative views of aging,” says Dr. Levy. “
- This advantage remained after adjusting for a number of factors such as age, gender, socioeconomic status, loneliness and functional health.”

<https://www.besthealthmag.ca/best-you/wellness/increase-your-life-expectancy/>

Water

- There are significant health benefits that are restored solely by staying hydrated with good clean water.
- Many diseases have been reversed with water, minerals and sea salt.
- Water is the primary transport system in our bodies, as it carries nutrients and oxygen into the cells and waste products out.
- When hydration is not at an optimal level, blood turns acidic, thickens, and circulation is decreased.
- When hydration is not optimal, there is poor oxygenation of tissue, which promotes metabolic acidosis that provides a ripe environment for cancer and disease.

Sunshine

- Published in the Journal of Internal Medicine on March 16, 2016, researchers found that folks who avoided sun exposure had a decreased life expectancy, worse than even heavy smokers who bathed in the sun.
- Researchers found that even when smoking was factored in, the life span of those who avoided the sun was over 2 years shorter than heavy smokers who got the highest amount of sun exposure.
- Even heavy smokers who soaked in the sun their whole life outlived non-smokers who avoided sun exposure... by several years.
- Participants who avoided the sun had higher rates of cardiovascular disease, diabetes, multiple sclerosis, and pulmonary disease.
- And the results were dose-specific... meaning that the benefits of increased life expectancy with sun exposure went up directly in correlation to the amount of sun exposure.

Avoidance of sun exposure as a risk factor for major causes of death: a competing risk analysis of the Melanoma in Southern Sweden cohort.
<https://www.ncbi.nlm.nih.gov/pubmed/26992108>

Lift Weights

- A study in 1990 published by the August Krogh Institute in Denmark showed found that there was one group of aging athletes who maintained the strength of men half their age: weight lifters.
- More studies have confirmed that muscle and bone loss could be stopped and even reversed through weight training.
- After lifting weights twice a week for a year, a group of postmenopausal women in their 50s and 60s made gains in bone density, and their scores on strength tests soared to levels more typical of women in their late 30s.

<https://www.besthealthmag.ca/best-you/wellness/increase-your-life-expectancy/>

Be Hardworking

- According to research finding that hard-working, [prudent humans live the longest](#).

("The Longevity Project: Surprising Discoveries for Health and Long Life from the Landmark Eight-Decade Study" March 2011 (Hudson Street Press)

- The conscientious, hard-working personality trait extends life by an average of two to three years, the equivalent to a 20 percent to 30 percent decreased risk of early death.

<https://www.besthealthmag.ca/best-you/wellness/increase-your-life-expectancy/>

Calorie Restriction

Since the 1930s it has been known that a diet restricted in calories, but otherwise rich in nutrients, dramatically extends the life span of experimental animals.

A study published in July 2008 indicated that eating less could add five years to the life of an average human. <https://www.livescience.com/2666-live-longer-anti-aging-trick-works.html>

A 2018 study found that calorie restriction decreased systemic oxidative stress, which has been tied to age-related neurological conditions such as Alzheimer's and Parkinson's diseases, as well as cancer, diabetes, and others. <https://www.sciencedaily.com/releases/2018/03/180322141008.htm>

Fasting

- A group of scientists from the University of Wisconsin-Madison and the Pennington Biomedical Research Center in Louisiana found that increasing time between meals improved the overall health of male mice and lengthened their lives compared to mice that ate more frequently.
- Perhaps even more surprisingly, **the health benefits were seen regardless of what the mice ate or how many calories they consumed.**
- “This study showed that mice who ate one meal per day, and thus had the longest fasting period, seemed to have a longer lifespan and better outcomes for common age-related liver disease and metabolic disorders,” said NIA Director Richard Hodes, M.D.
<https://www.usatoday.com/story/news/2018/09/06/fasting-may-more-important-than-what-youre-eating-study-suggests/1206269002/>

Older People and Sleep

- New research out of Beth Israel Deaconess Hospital in Boston and the University of Toronto Health Sciences Center tells us (or at least indicates) that reduced sleep among the elderly is not the function of better-quality snoozing, but rather, the result of losing brain cells.^{[1](#)}
- It turns out that there's a cluster of neurons in the brain that regulates sleep. When we're young, our brain has a generous supply of these neurons, and so they form a nucleus that acts as a sort of switch that turns the brain off for sleeping, and then turns it back on when it's wake-up time.
- As we age, though, we lose brain cells along with skin tone and muscle mass, and that means the number of these regulatory neurons in our brain decreases.
- The new study shows not only that elderly people do, in fact, have a diminished supply of these neurons, but also, that having fewer of these neurons leads to disturbed sleep.
- According to study director Clifford Saper, MD, "The more of these cells you lose from aging, the harder time you have sleeping."

<https://jonbarron.org/anti-aging/older-people-and-sleep-reconsidered>

Exercise for Sleep Quality

- There's a substantial body of scientific evidence that exercise helps improve sleep. Making exercise part of your regular routine can contribute to healthier, more restful sleep—and may help improve sleep issues such as insomnia.

<https://thesleepdoctor.com/2017/05/22/benefits-exercise-sleep/>

- Presently in American society, an inability to sleep and sleep well is a pervasive health concern. Despite the magnitude of this problem, the physiological function of sleep in regulating normal hormonal and metabolic processes is not fully recognized. However, that does not dismiss the mounting evidence that physical exercise is an effective intervention for those who do not experience adequate sleep quantity or quality.

Interrelationship between Sleep and Exercise: A Systematic Review

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5385214/>

Inflammation

Chronic inflammation is a major aging factor and a primary contributor to premature death.

Probably the **five most important** things we can do to reduce inflammation are:

1. Regular the regular use of systemic proteolytic enzymes
2. Having an omega-6 to omega-3 ratio of 2:1 but not higher than 3:1. The omega-6 to omega-3 ratio of hemp oil is 3:1.
3. Maintaining gut health
4. Keeping cortisol levels down (stress)
5. Keep blood sugar/insulin levels down

Kick Out Zombie Cells

- Thanks to a [new study published in *Nature Medicine*](#), we now have a convincing culprit for age-related physical dysfunction: the accumulation of “zombie” senescent cells.
- Senescent cells pump out inflammatory “SOS” signals in an attempt to recruit other healthy cells to come to their rescue.
- The inflammation created by senescent cells can lead to tissue dysfunction and even turn healthy cells senescent.
- We might be able to fight off senescent cells and their inflammatory secretions with interventions including senolytic drugs, **exercise** and **intermittent fasting**.

<https://medium.com/lifeomic/dont-be-a-zombie-senolytics-exercise-and-fasting-fight-off-senescent-cells-cc720d88240>

Fiber and Microbiome

Perth medical researchers who tracked a group of women for 15 years have found eating an apple every day was associated with a **35 per cent decrease in mortality**.

<https://www.abc.net.au/news/2016-03-31/apples-may-increase-life-expectancy-for-older-women-study/7287562>

A 2014 study published by the American Journal of Epidemiology showed that a **10 % reduced risk for all-cause mortality** was observed for every 10 grams of fiber participants added to their overall fiber intake.

[American Journal of Epidemiology January 5, 2015](#)

Green bananas (less sugar) will probably do the same as a apple a day.

Leafy Greens

New research from Rush University Medical Center in Chicago found that eating just one serving of leafy green vegetables a day **takes a decade off an aging brain**. Two servings produced even greater effects.

Reference

Bennett DA, Dawson-Hughes B, Booth SL, et al. Nutrients and bioactives in green leafy vegetables and cognitive decline: Prospective study. *Neurology*. 2018 Jan 16;90(3):e214-e222.

http://www.greenmedinfo.com/blog/one-serving-greens-daily-slows-brain-aging-over-decade?utm_source=Daily+Greenmedinfo.com+Email+List&utm_campaign=592a6cc60d-green+vegetables&utm_medium=email&utm_term=0_193c8492fb-592a6cc60d-%5B%5D&ct=t%28green+vegetables%29&mc_cid=592a6cc60d&mc_eid=%5BUNIQID%5D

Olive Oil

- **Unrefined extra virgin olive oil**, a chief component of the Mediterranean diet, has been given significant credit for the diet's health-promoting ability, especially with its rich **polyphenol** content.⁶⁻⁹

<https://www.lifeextension.com/Magazine/2018/1/Olive-Oil-Markedly-Extends-Human-Lifespan/Page-01>

- Limited and not conclusive scientific evidence suggests that eating about 2 tablespoons (23 grams) of olive oil daily may reduce the risk of coronary heart disease due to the monounsaturated fat in olive oil.

<https://www.pritikin.com/your-health/healthy-living/eating-right/1103-whats-wrong-with-olive-oil.html>

- The ["PREDIMED" study](#), published in the New England Journal of Medicine in 2013 conclusively showed that the Mediterranean diet group had a third less heart disease, diabetes and stroke than the low-fat group.
- The cheaper forms of olive oil (those labeled regular or virgin) didn't show any benefit – it had to be extra virgin. High grade extra virgin oil, especially if cold extracted, has around 30 polyphenols that act as antioxidants, which reduce inflammation and also help reduce the effects of aging particularly on the heart and brain.
- These antioxidant polyphenols also work via our gut microbes that make up our microbiome. They feed off the different polyphenols and produce other small chemicals (short chain fatty acids) that dampen down inflammation and help our immune system.

<https://www.iflscience.com/health-and-medicine/drink-glass-olive-oil-every-day-mediterranean-way-long-life/>

Aged Garlic

The #1 most powerful anti-cancer food was garlic.

Garlic stopped cancer growth COMPLETELY against these tumor cell lines:

- Breast cancer
- Brain cancer
- Lung cancer
- Pancreatic cancer
- Prostate cancer
- Childhood brain cancer
- And stomach cancer

<https://www.chrisbeatcancer.com/wp-content/uploads/2013/01/Anti-Cancer-Vegetables-Study.pdf>

<https://foodrevolution.org/blog/cancer-fighting-foods/>

Magnesium

A cell study published in late 2016 revealed that magnesium supplementation mimics a key underlying mechanism of calorie restriction.

<https://www.ncbi.nlm.nih.gov/pubmed/27574117>

A 2011 study published in the American Journal of Clinical showed that:

- Lowers the risk of sudden cardiac death by 77%
- And that for each 0.25 mg/dL increase in plasma magnesium, the risk of sudden cardiac death dropped by 41%.

<https://wholefoodsmagazine.com/columns/vitamin-connection/magnesium-factor-longevity-live-longer-and-healthier-magnesium/>

Magnesium

2014 Journal of Nutrition study showed that magnesium improves lifespan by reducing death from all causes.

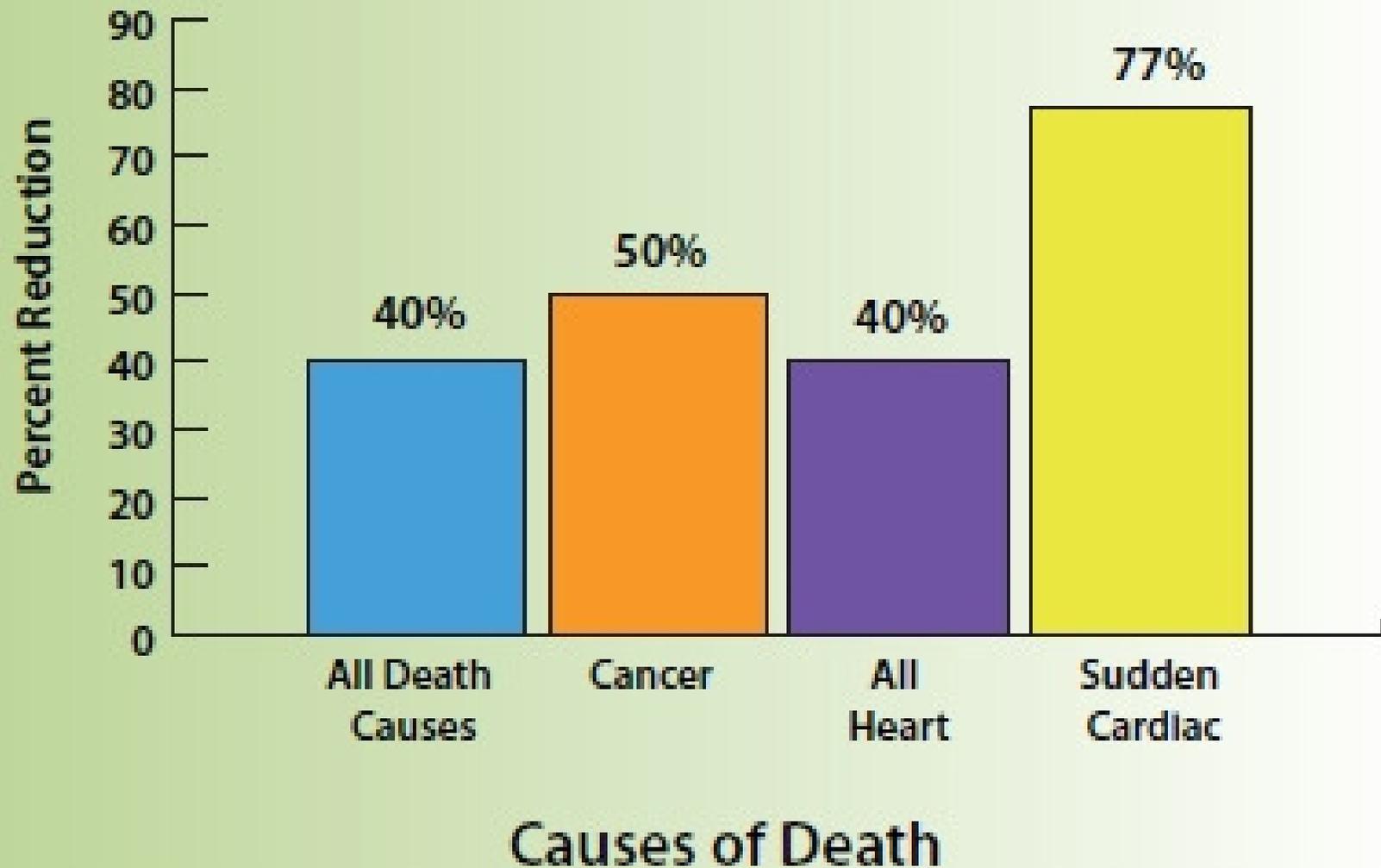
- 34% improved longevity from having higher levels of magnesium

Optimal magnesium levels lower:

- Risk of death from all causes by 40%
- Cancer by 50%
- All forms of heart disease by 40%
- Sudden cardiac death by 77%.

<https://wholefoodsmagazine.com/columns/vitamin-connection/magnesium-factor-longevity-live-longer-and-healthier-magnesium/>

Magnesium Reduces Death Rates and Improves Longevity by 34%



Magnesium

- **MIT** researchers discovered and patented **magnesium L-threonate** based on its unique ability to boost **brain** levels of **magnesium**.
- The most startling finding is a reversal of more than **nine years** in clinical measures of **brain aging** in people who supplemented with **magnesium L-threonate**.
- This effect is due to its unique ability to cross the **blood-brain barrier**.²
- Research has shown that once **MgT** gets into the brain, it increases the **density** of **synapses**, which are the communication **connections** between brain cells.¹
- This is critical because loss of **synaptic density** is associated with **brain shrinkage** and **cognitive decline**.^{5,6}

<https://www.lifeextension.com/Magazine/2018/6/Reverse-Clinical-Measures-of-Brain-Aging/Page-01>

Whey Protein

- Evolving research suggests the branched-chain amino acids (BCAAs) leucine, isoleucine, and valine and other fractions found in whey can mimic the longevity benefits of calorie restriction.
- In addition to expanding life span, whey has been found to reduce **muscle wasting** in the elderly, reduce the risk of **diabetes**, inhibit **cancer** development, and defend against **cognitive decline**.[16-19](#)

<https://www.lifeextension.com/magazine/2013/9/New-Longevity-Benefits-of-Whey-Protein/Page-01>

- Whey has been shown to increase your body's stores of the antioxidant **glutathione**.
- Glutathione is known to increase the integrity of telomeres. Telomeres are bundles of DNA found in every cell, and they shorten with age.

<https://articles.mercola.com/sites/articles/archive/2010/02/27/top-7-foods-that-slow-your-aging.aspx>

Insulin Levels

- Most people don't understand the importance of optimizing their insulin levels, as insulin is without a doubt THE major accelerant of aging.
- Fortunately, you can go a long way toward keeping your insulin levels healthy by reducing or eliminating grains and sugars from your diet.

<https://articles.mercola.com/sites/articles/archive/2010/02/27/top-7-foods-that-slow-your-aging.aspx>

All About the Hormones

DHEA

DHEA declines precipitously with advancing age in both men and women.

Testosterone

Testosterone declines with advancing age in both sexes. Testosterone also plays an important role in maintaining muscle mass and strength and bone density.

Estrogen and Progesterone

The "female" steroid hormones estrogen and progesterone play important roles in maintaining bone density, strength, and mental function. Recent studies indicate that estrogen may be an effective treatment for age-associated memory problems.*

Melatonin

Melatonin is a highly potent antioxidant, which has been described as the pacemaker of the aging clock in humans. Published studies indicate the importance of maintaining youthful levels of melatonin to help protect against age-related degenerative diseases.

<https://www.lifeextension.com/anti-aging>

B Complex Vitamins

- B vitamins may slow brain shrinkage by as much as seven-fold in brain regions specifically known to be most impacted by Alzheimer's disease
- B vitamins are known to suppress homocysteine
- High levels of the amino acid homocysteine are linked to brain shrinkage and an increased risk of Alzheimer's
- Among participants taking high doses of folic acid and vitamins B6 and B12, blood levels of homocysteine were lowered as was the associated brain shrinkage – by up to 90 percent

<https://articles.mercola.com/sites/articles/archive/2013/06/03/vitamin-b.aspx>

B 12 - Methylcobalamin

- B12 is also very important in the health of our red blood cells and their **ability to carry the oxygen** we need. A deficiency can not only produce fatigue, as stated earlier, but can also manifest in peripheral **neuropathy** or simply put a tingling and numbing sensation in the hands and feet.
- In a recent study featured in *PLOS*, B12 was found to be lower in the brain in conditions such as **aging**, autism, and schizophrenia. In the **elderly B12 levels in the brain were found to be as much as 3 times lower than healthy younger populations**. Therefore, a lower level of vitamin B12 may affect age-related memory decline.

<https://www.longevitymedical.com/blog/b12-or-not-b12>

Carnosine

- L-Carnosine is a naturally occurring combination of two amino acids--alanine and histidine--that was discovered in Russia in the early 1900s.
- It was discovered that carnosine can actually reverse the signs of aging in senescent or old cells.
- Once you actually understand the role it plays in preventing and potentially reversing all of the signs of old age in the body (everything from wrinkled skin to cataracts to Alzheimer's) and even possibly extending life itself – then you're left with the unmistakable conclusion that supplementing with carnosine may represent one of the single best things you can do to help "turn back your biological clock.

<https://jonbarron.org/pdf/aging.pdf>

Resveratrol

Findings from published scientific literature indicate that [resveratrol](#) may be the most effective compound for maintaining optimal health and promoting longevity.

Resveratrol has been shown to:

- promoting healthy insulin sensitivity
- Enhance mitochondrial function
- Reduce inflammatory factors
- Protection against the effects of a high-fat diet

<https://www.lifeextension.com/anti-aging>

PDFs of the presentations are available at

**[https://www.lifetraininginstitute.org/
resource-links.html](https://www.lifetraininginstitute.org/resource-links.html)**