



Blog Post:

How to Live Longer and Healthier with Preventive Medicine

What if you could live not only longer, but also healthier? What if you could prevent or delay the onset of age-related diseases and chronic conditions? What if you could optimize your health and well-being with simple and effective interventions? These are the questions that preventive medicine aims to answer.

Lifespan vs. Healthspan

Pushing the boundaries of mortality must be one of the greatest human ambitions. As a result of modern medicine and preventive health measures, life expectancy at birth in the United States has risen to an average of 76.4 years for both sexes.¹ Therefore, you are much more likely to live longer than your great-grandparents. Does that mean that you will also be healthier? Not necessarily.

Increasing just the lifespan, without considering the healthspan, might lead to a longer life spent in poor health. However, by applying preventive medicine strategies, you can not only increase your lifespan, which is the number of years you live, but also your healthspan, which is the number of years you live in good health and free of disease. Today, there is a growing research focus on increasing the human healthspan by delaying the onset and progression of chronic diseases.²

What is preventive medicine?

Preventive or functional medicine is a proactive approach to healthcare that aims to reduce the risk of developing various diseases and delay disease progression. It is based on scientific evidence and a personalized assessment of your health status, risk factors, and goals.³

While traditional medicine has helped us live longer, it has not prevented the rise of chronic diseases, such as cardiovascular disease, diabetes or cancer. These diseases have increased exponentially, reducing our healthspan and quality of life. To address this challenge, we need a different approach that goes beyond public health education, screenings, regular check-ups, vaccination, and supplementation. We need an approach that considers the complex interactions between our genes, environment, and lifestyle, and how they affect our health and disease. We

need an approach that does not draw arbitrary lines or compartmentalize biology into separate silos, but rather recognizes the body as an interconnected network of systems and identifies the root causes of disease. We need an approach that is personalized, precise, and functional.³

Why does it work better than reactive medicine?

Reactive medicine—or what we define as traditional^a (Western) medicine—is the opposite of preventive medicine.

Conventional reactive medicine only intervenes when a disease has already manifested and causes symptoms. It then tries to treat the disease by prescribing drugs or performing surgery, often without addressing the root causes or the impacts of diet, lifestyle, and environment on the body.³ This approach is useful and necessary for acute or life-threatening situations, such as trauma, infection, or stroke. However, it is not very effective or sustainable for preventing or reversing chronic diseases, which are the leading causes of death and disability in the world.

Preventive medicine, on the other hand, aims to keep people healthy and disease-free by identifying and modifying the factors that contribute to disease development, such as toxins, allergens, microbes, poor nutrition, stress, and inflammation. It also has many advantages for the overall healthcare system, such as reducing costs, hospitalizations, overcrowding, and invasive treatments.³ We are in the business of CREATING health, not just managing disease.

What preventive treatments are available?

Preventive medicine includes various medical interventions, therapies, and practices that will help you optimize your health, enhance overall well-being, and increase longevity. It encompasses general lifestyle modifications and more specific interventions such as hormone replacement therapy and regenerative medical treatments.

- **Lifestyle modifications.** Lifestyle is the backbone of health and longevity. By adopting healthy habits such as regular exercise, adequate sleep, stress management, and social connection, you can improve your physical, mental, and emotional health. The food you eat is also crucial. All these measures, if applied consistently, have been shown to decrease the risk of chronic conditions and death.^{4,5}
- **Supplementation.** Supplementation can enhance your health and prevent or treat diseases. Examples of supplements for health and longevity include:

^a We use this term interchangeably with “Western,” “reactive,” or “conventional” medicine in this article.

- *Vitamins D3 and K2, as well as magnesium*, have been shown to positively impact long-term outcomes for bone and cardiovascular health.^{6,7}
- *Magnesium*, in particular, may protect against unwanted cardiac, nervous, and neuromuscular conditions.⁸
- *The vitamin B group* promotes blood production as well as the optimal functioning of the cardiovascular and nervous systems.⁹
- *Zinc* may improve immune response, as well as diminish age-related eyesight deterioration.¹⁰
- *Fish-derived omega-3 fatty acids* may help with cardiovascular function and Alzheimer's disease by reducing inflammation, improving blood flow, and enhancing brain health.¹¹
- **Hormone replacement therapy.** Hormonal balance is extremely important for optimal biological functioning. Research has found hormone replacement therapy to increase longevity in men with low testosterone levels and in post-menopausal women.¹²
- **Gut microbiome therapy.** Dysbiosis—an imbalance between beneficial and harmful microbes in your gut—has been associated with many health conditions.¹³ Depending on the specific condition, there are many interventions to consider: diet changes, supplementation with live microbes, fecal microbiota transplantation (FMT), or antimicrobial drugs.¹³
- **Regenerative medical treatments.** Regenerative medicine aims to repair or replace damaged cells to restore their normal function. An example is peptides, which have been shown to have antioxidant, antihypertensive, and antidiabetic effects.¹⁴

I want to be healthier. What should I do?

Do you want to live longer and healthier? Then take charge of your health today. At Opt Health, we will assess your health status and create a customized plan to optimize your life. Contact us now and let us guide you on the path to health and longevity.

Prepared by:

Samuel Sarmiento, MD, MPH, MBA

Founder & CEO

Juniper Life Sciences

Elkins, WV

References

1. Life Expectancy. Centers for Disease Control (CDC). Last reviewed February 7, 2023. <https://www.cdc.gov/nchs/fastats/life-expectancy.htm>. Accessed December 26, 2023.
2. Crimmins EM. Lifespan and Healthspan: Past, Present, and Promise. *Gerontologist*. 2015 Dec;55(6):901-11. doi:10.1093/geront/gnv130
3. Babatunde AO, Shobanke HA, Akinade AA, et al. Enhancing preventive medicine over curative medicine: Role of telemedicine. *Public Health Pract (Oxf)*. 2021 May 2;2:100130. doi:10.1016/j.puhip.2021.100130
4. Gremeaux V, Gayda M, Lepers R, Sosner P, Juneau M, Nigam A. Exercise and longevity. *Maturitas*. 2012 Dec;73(4):312-7. doi:10.1016/j.maturitas.2012.09.012
5. Buysse DJ, Grunstein R, Horne J, Lavie P. Can an improvement in sleep positively impact on health? *Sleep medicine reviews*. 2010 Dec 1;14(6):405-10.
6. Braam LA, Hoeks AP, Brouns F, Hamulyák K, Gerichhausen MJ, Vermeer C. Beneficial effects of vitamins D and K on the elastic properties of the vessel wall in postmenopausal women: a follow-up study. *Thromb Haemost*. 2004 Feb;91(2):373-80. doi:10.1160/TH03-07-0423
7. Iwamoto J, Takeda T, Ichimura S. Treatment with vitamin D3 and/or vitamin K2 for postmenopausal osteoporosis. *Keio J Med*. 2003 Sep;52(3):147-50. doi:10.2302/kjm.52.147
8. Gröber U, Schmidt J, Kisters K. Magnesium in Prevention and Therapy. *Nutrients*. 2015 Sep 23;7(9):8199-226. doi:10.3390/nu7095388
9. Raju Kumar, Umesh Singh, Abhay Tiwari, et al. Vitamin B12: Strategies for enhanced production, fortified functional food products, and health benefits. *Process Biochemistry*. 2023; 127:44-55. doi:10.1016/j.procbio.2023.02.002
10. Saper RB, Rash R. Zinc: an essential micronutrient. *Am Fam Physician*. 2009 May 1;79(9):768-72.
11. Swanson D, Block R, Mousa SA. Omega-3 fatty acids EPA and DHA: health benefits throughout life. *Adv Nutr*. 2012 Jan;3(1):1-7. doi:10.3945/an.111.000893
12. Comhaire F. Hormone replacement therapy and longevity. *Andrologia*. 2016 Feb;48(1):65-8. doi:10.1111/and.12419
13. Durack J, Lynch SV. The gut microbiome: Relationships with disease and opportunities for therapy. *J Exp Med*. 2019 Jan 7;216(1):20-40. doi:10.1084/jem.20180448
14. Admassu H, Gasmalla MAA, Yang R, Zhao W. Bioactive Peptides Derived from Seaweed Protein and Their Health Benefits: Antihypertensive, Antioxidant, and Antidiabetic Properties. *J Food Sci*. 2018 Jan;83(1):6-16. doi:10.1111/1750-3841.14011