

Young Forever: Why Balance Matters by Mark Hyman, MD

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Those who disobey the laws of Heaven and Earth have a lifetime of calamities, while those who follow the laws remain free from dangerous illness. —Huangdi Neijing (The Yellow Emperor’s Classic of Internal Medicine)

How many chemical reactions happen every second in the human body? A million? A trillion? Nope. Thirty-seven billion billion. That’s twenty-seven zeros! It is beyond our minds’ ability to comprehend the complexities of the human organism. This magical dance of molecules and chemical reactions underlies all health, disease, and aging. Learning how to fine-tune these reactions, to facilitate healing, repair, and regeneration, is at the heart of functional medicine.

The hallmarks of aging are how our biology becomes out of balance. Conventional medicine describes the what: what disease, what pathway is dysfunctional, what drug to take. The model of functional medicine guides us to the why, to the root causes of diseases and aging. Many longevity research efforts focus on just treating the hallmarks of aging, without treating their underlying causes. That’s where functional medicine comes in. What causes the hallmarks in the first place? Imbalance — too much bad stuff, not enough good stuff.

The beauty of the human organism is that we don’t have to know its every gene, protein, metabolite, or microbe. We simply need to know what creates imbalance or balance, and thankfully it is not millions of things. It is a few simple things.

In functional medicine, we ask just two questions to figure out what’s causing dysfunction in the body’s ecosystem. First, what do you need to get rid of that is causing the imbalance? Second, what do you need to put into the system to help restore balance? In other words, how is your exposome [the total sum of your exposures and experiences]

harming or helping your body?

While genes play a role in our health, our disease risks, and our potential for longevity, they play far less a role than we had imagined. The exposome determines 90 percent of our disease and aging risk. Our genes and every aspect of our biology respond in real time to our exposome. While some populations, like those in the Blue Zones, experience great longevity, when they adopt a modern diet and lifestyle, their disease risks go up and their longevity plummets. While the various Blue Zones are located across the world, they all are in places where the good stuff, like whole foods, movement, and community, is abundant and the bad stuff, like processed food, a sedentary lifestyle, chronic stress, and environmental toxins, is mostly absent. That's good news for all of us because it means we have tremendous power over our health and life span.

Evolution set up our biology to function in very particular ways. The fact that 93 percent of Americans are metabolically unhealthy and suffering from some degree of pre-diabetes or type 2 diabetes (which is at the root of rapid aging and heart disease, cancer, and dementia) is largely due to the burden of too many things we never evolved to handle and not enough of the things designed to help us thrive.

What do we need to reduce or eliminate to create health?

- Our modern ultraprocessed diet, loaded with sugar and flour as well as hydrogenated oils and too many refined oils
- Environmental toxins (84,000 new compounds just since 1900)
- Certain types of infections (latent viruses, bacteria, and tick-borne illness) and microbiome imbalances
- Gut-damaging medication, including antibiotics, anti-inflammatories, and acid blockers
- Allergens and food sensitivities
- Inactivity
- Chronic stressors of modern life (physical and psychological)
- Social isolation and loneliness

What do we need to increase or add to create health? What are the ingredients for health?

- Whole, real, unprocessed foods
- Wild regeneratively-raised or grass- or pasture-raised meats and eggs and fatty fish
- Fiber
- Phytonutrients

- ☐ Micronutrients (e.g., vitamin D, zinc, magnesium, B vitamins, omega-3 fatty acids)
- ☐ Optimal hormone levels (supported by healthy lifestyle or bio identical hormone replacement)
- ☐ Adequate and ideal light exposure at the right times of day
- ☐ Optimal hydration
- ☐ Clean air
- ☐ Exercise and movement
- ☐ Restorative practices (yoga, meditation, breath work)
- ☐ Sleep and health circadian rhythms
- ☐ Community, love, and belonging
- ☐ Meaning and purpose

By adding the good stuff and removing the bad, you activate your body's natural healing systems, its innate intelligence that is designed to create health. We have far more control over our biology than most of us have ever imagined. While it is impossible to optimize for all the good stuff or eliminate all the bad stuff all the time, it is important to build a lifestyle that automatically makes all of it just a little simpler and habitual.

For more inspiration join a special Awakin Call with Mark Hyman early next week: Reimagining Our Biology, Health and the Process of Aging. More details and RSVP info [here](#).