

Turn Back the Hands of Time: Healthy Lifestyles Slow Down and Even Reverse the Aging Process

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Modern medical research has lent a great deal of validity to the old adage “you are only as old as you feel.” By understanding the concepts of chronological age and biological age, and their differences, the wisdom in such a seemingly innocuous remark becomes readily apparent.

Chronological Age vs. Biological Age – The Linear vs. the Holistic

Chronological age is how old you are according to the calendar. The counting began the day you were born. Biological age is a bit more complex. It refers to your “true age,” or functional age, and it involves how healthy you are. Biological age involves a much larger and holistic picture, as it is determined by genetics, environment and, most significantly, lifestyle. You can be 42 years old, but if you smoke heavily and eat poorly, and if you live in an urban environment, your biological age can conceivably be twice that. Essentially, it involves cumulative damage to your body.

There’s nothing you can do about your chronological age, but there’s a great deal you can do about your biological age. By making lifestyle changes, health experts report, you can slow down, and even reverse, the biological aging process.

The two most significant elements affecting biological age involve diet and physical activity. Good nutrition and regular exercise can reduce the risks for conditions reflective of premature biological aging including heart attack, stroke, high blood pressure, diabetes, osteoporosis, depression, obesity, osteoarthritis, and cancer. The trouble is, most people assume—quite incorrectly—that these conditions are inevitable with age. Such diseases are not a condition of chronological aging but of biological aging. Therefore, they can be prevented.

You Mother was Right

Eating well is a simple matter, really. Essentially, it involves all of the adages and admonitions we heard when we were children: “An apple a day...,” “Eat your vegetables,” etc. Health experts in organizations like the Mayo Clinic, the Center for Disease Control and Protection (CDC), the National Institute of Health and the American Academy of Family Physicians (AAFP), all offer quite similar recommendations that include eating more plant-based foods, watching fat intake and reducing caloric intake. For guidance, the AAFP suggests that you eat:

- 2 to 4 servings of fruits and 3 to 5 servings of vegetables a day
- 6 to 11 servings of bread, cereal, rice and pasta a day
- 2 to 3 servings of low-fat or fat-free milk, yogurt and cheese a day

- 2 to 3 servings of meat, poultry, fish, dry beans, egg whites or nuts a day
- Lots of fiber (found in whole-grain breads and cereals, fruits and vegetables)

Practice Some Preventive Maintenance

Exercise has been called preventive maintenance for the body. According to the Mayo Clinic, it is probably the most important thing you can do to take care of yourself.

Regular exercise can improve both cardiac and metabolic functions within the body, improve cholesterol and blood sugar levels, and reduce the risks of heart attack and strokes. Generally, health experts recommend an exercise plan that includes three or four workouts a week and combines aerobics with weight training. This combination helps stem the loss of bone strength and muscle mass that comes with age as well as the reduction of aerobic capacity.

Why Do We Age?

Several theories have been advanced to try and explain precisely why we age. The so-called “programmed” theories state that the body is genetically programmed to age on a set timeline. The “damage” or “error” theories attribute aging to environmental factors that damage the body and impair function. But these are only theories. Right now, the only thing researchers know for sure is that genetic and environmental factors, combined with lifestyle choices, contribute to the process.

Environmental factors can include many extraneous elements such as where we live and our marital status. For instance, a recent report, "Health, United States, 2001, with Urban and Rural Health Chartbook," issued by the Department of Health and Human Services, revealed that suburban residents live longer than people living in rural or urban locations. Another significant extraneous element is marital status. Studies have revealed that marriage contributes positively to biological age as it promotes stability, improved nutrition, and reduced stress, and it supplies partners with positive reinforcement of healthy behaviors.

The consensus among health experts is that the one environmental factor that most affects lifespan is lifestyle. Bad habits—including overeating, smoking, and alcohol abuse—result in premature biological aging, as they lead to premature cellular damage. According to the CPC, healthy lifestyles are more influential than genetic factors in avoiding the deterioration associated with aging. Those who embrace good nutrition, exercise, and proactive medical care can cut their risk for chronic disease in half.

The AAFP also recommends avoiding exposure to the sun, which is linked to skin cancer. Sun protection is particularly vital when you grow older, as your skin becomes thinner, your sweat and oil (sebaceous) glands become less active, and the moisture in your skin decreases.

Both the CPC and AAFP highly recommend a proactive approach to medical care. Health screenings, including mammograms and prostate tests are essential. The CPC also recommends you keep your immunization shots up to date. Adults need a tetanus-diphtheria booster every 10 years. People 50 or older and others at risk should get a flu shot.

Improved Quality of Life Starts Now

There is a strong anti-aging movement afoot in the United States, with many advocates promoting their own theories that include diverse treatments involving human growth hormones and free radical damage treatment. Some are only theoretical and need be approached with caution. Until someone discovers a scientific “fountain of youth,” you can slow down your biological aging process by making healthy lifestyle decisions. A regimen that includes good nutrition, exercise, and proactive medical care can slow down and even reverse the biological aging process. And it’s never too late to start.

Sidebar 1

The Mind: Use it or Lose it

Health experts recognize that exercise for the mind is just as important to biological age and quality of life as exercise for the body.

According to researchers from the Mayo Clinic, mental activity keeps the mind sharp and agile as you grow older. As such, they consider it important that you continue to learn new things and take on new mental challenges. Recommended activities include learning a new language, changing careers, writing a daily journal and doing crossword puzzles. They also recommend that you participate in activities like classes at community colleges, book clubs, or discussion groups.

Further, mental agility can be maintained by learning how to use new technologies like computers and the Internet. The Clinic reports that studies have shown that older people are quite capable of learning new things, even though their learning processes change with age. New cultural experience—such as attending concerts and plays—also help continue expanding the mind.

Engaging in physical activities such as regular exercise can help maintain mental acuity, as it improves blood flow to the brain.

Experts also indicate that stress reduction is important in maintaining mental acuity as stress and anxiety can hinder concentration. Accordingly, they stress the importance of stress management techniques such sitting down in a comfortable position with eyes closed and taking a mental break from the pressures of everyday life. They also recommend more advanced techniques such as meditation and yoga.

Sidebar 2

How Old are You, Really?

It's easy to determine your chronological age. Simply look at your driver's license. But how about your biological age?

This can be determined by two tests. The Biological Terrain Analysis (BTA), a comprehensive laboratory test, analyzes samples of blood, urine and saliva. It measures the body's oxidative load, pH (acid/alkaline) balance, and the mineral content of fluids. It uses the data to define the most important aspects of health and summarizes those aspects into a profile of biological age

The Rapid Aging Method (RAM) Profile can indicate true age, as well as predict lifespan, by utilizing as many as 50 different biologic markers of aging, or biomarkers, to determine one's "biological age." The test analyzes circulating hormones as biomarkers, as many of the body's functions are regulated by hormones, which decline as we grow older and reduce cell activity. It has been employed as part of anti-aging treatment and evaluation. The test not only indicates your current health, but it indicates areas that need improvement. Further, the test can be repeated to reveal the body's response to anti-aging therapy. It gives a true biological age and predicts longevity and current health.

Sidebar 3

Imaging Technology Reveal New Information about Obesity

In the United States, obesity among adults aged 20-74 has doubled from 15 percent of the population to almost 27 percent, according to the Center for Disease Control. The American Medical Association reports that the condition causes 280,184 deaths per year in this country. Obesity increases risks of hypertension, diabetes and heart disease, and it can result joint damage—all of which significantly reduce your biological age.

In recent years, health researchers have concluded that obesity is a disease and not simply the result of poor eating habits or lack of willpower. By employing functional magnetic resonance imaging, a radiological modality that analyzes brain function, researchers at The University of Texas Health Science Center at San Antonio (UTHSC) and University of Florida's Department of Psychiatry and Evelyn F. and William L. McKnight Brain Institute in Gainesville, have demonstrated a link between brain and eating that is especially critical in understanding the causes of obesity. The findings suggest that those suffering the condition experience a delayed feeling of fullness, and that this delay is related to neuroendocrine mechanics. For most people, the researchers point out, a feeling of fullness, or satiety, comes about 10 minutes after they begin eating. For obese people, it may take about four to nine minutes longer.

Further, the research suggests that loss of control over eating and obesity produces changes in brain chemistry similar to those produced by drugs of abuse. Essentially, overeating affects the pleasure centers of the brain in much the same way that alcohol and drugs do.

Researchers feel more traditional methods of treating obesity—such as dieting—are largely unsuccessful. A more effective approach, they feel, would be similar to the one embraced by recovering alcoholics and drug addicts. This would include significant lifestyle and behavioral changes. (Of course, for the obese, the changes would include condition-specific tactics like eating only when hungry, eating slowly, and eating smaller portions.) Like recovering alcoholics and drug addicts, the obese may need restructure their day-to-day living—taking it, as alcohol and drug counselors often advise, “one day at a time.” Treatment even may require profound lifestyle changes including altering, and even terminating, certain personal relationships.