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Aging Gracefully: Must We Accept A Bitter End?

**By Melanie Reynolds
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“The idea is to die young as late as possible.” – Ashley Montagu, English scientist

Some of my friends and relatives are celebrating milestone birthdays this year, and that’s got me thinking about aging and all the changes it entails.

We all know aging beats the alternative, but does it have to be a slippery slope to physical and mental disease? Can we stave off the bitter end? Can we at least control the quality of our “golden years?”

Many scientists are asking the same questions as the Baby Boom Generation – my generation – shuffles reluctantly toward “that good night.” As the authors of the most recent Montana State Plan on Aging put it: “We are an aging society, and that fact is even more evident as the first of the Baby Boomers, the aging tsunami, turn 65 years of age in 2011. For the next 25 to 30 years, we will continue to see rapid growth of the 65 and older age group.”

This aging of the U.S. population has myriad ramifications for our society, including public health. Aging is not a disease, but it’s well established that the risk of developing many diseases increases with age.

Why Do We Age?

While we may secretly wish for the invention of an anti-aging pill, we know that getting older and dying are inevitable. A pair of German scientists, writing last year in the journal *Geropsych*, took a look at the basic theories about why we age and grouped them into three categories:

1. **Evolutionary aging theories.** These speculate that, because natural selection is linked to reproduction, our bodies are most fit during the first half of our lives, when we’re most likely to have children. There’s no evolutionary benefit to prolonging our lifespans, so the negative impacts of our genes become more apparent as we age.
2. **Stochastic aging theories.** As we grow older, the process of living causes wear and tear on our bodies, leading to tissue and organ death and eventually the grave.

3. **Deterministic aging theories.** These suggest that we're genetically programmed to live a certain natural lifespan. Some older deterministic theories suggested that our lifespans were linked to the number of times our hearts beat or to the number of calories we consumed. A more recent theory postulates that we have a "genetic clock" that controls the age at which different life stages happen. Our bodies wear out because there's a limit to how many times our cells can regenerate.

Although the authors of the article say no single theory completely explains the aging process, recent research has supported the "genetic clock" concept. Scientists have discovered "telomeres," which have been described as "disposable buffers" that protect the ends of chromosomes – kind of like the little plastic piece on the end of a shoelace. Each time a cell divides, its telomeres shorten. This causes the cell to age and eventually die.

Research has found that telomere length can be a risk factor in several age-related diseases, including type 2 diabetes, cancer, heart disease, and dementia.

What Is Normal Aging?

"Aging, in and of itself, is a subtle, quiet process," according to Dr. Marie Bernard, deputy director of the National Institute on Aging.

Although some changes related to aging are inevitable, many are not. It's a mistake to dismiss every lapse of your body as evidence of growing old!

Health experts say most people reach the peak of their functioning at around age 30. Then our bodies begin a general decline in physical stamina due to decreased bone mass, metabolism, and functioning in all our organs. How soon you notice age-related changes depends on your lifestyle, medical history, and genetics.

Along with gray hair and wrinkles, here are some of the changes you might experience as a normal part of the aging process:

- Your heart will slow slightly and your blood vessels will stiffen, causing your heart to work harder. This can lead to high blood pressure and other cardiovascular problems.
- Your bones will shrink in size and density, making them more breakable.
- Your muscles will lose strength and flexibility, which may make you more prone to falls.
- Constipation becomes a more constant companion, and you may lose some bladder control.
- Information processing slows, so memory and concentration become less reliable.
- You'll become more vulnerable to emotional problems such as depression.
- Your senses – hearing, vision, touch, smell, and taste – won't be as sharp as they once were.

How Can We Age Better?

If that list was disheartening, don't stop reading yet! The good news is: There are lifestyle behaviors we can adopt that can help slow the aging process – or at least help us stay more physically and mentally fit over time.

Many of those lifestyle behaviors will sound familiar. They promote good health at any age, and they actually slow down the aging process at a cellular level.

- **Include physical activity in your daily routine.** It can help lower blood pressure, lessen the extent of arterial stiffening, and strengthen bones and muscles. It also increases blood flow to your brain, which might help keep your memory sharper. Balance exercises can help prevent falls, a major cause of disability in older adults.
- **Eat a healthy diet** that includes veggies, fruits, whole grains, high-fiber foods, and lean sources of protein, like fish. Limit foods high in saturated fat and sodium. A healthy diet can help keep your heart and arteries healthy.
- **Don't smoke.** It contributes to hardening of the arteries and increases blood pressure and heart rate.
- **Manage stress.** It can take a toll on your heart and shorten telomeres.
- **Maintain a healthy weight and fat-to-muscle ratio.** Many health problems are connected to being overweight or obese, including diabetes, high blood pressure, stroke, some types of cancer, heart disease, sleep apnea, and osteoarthritis.
- **Get enough calcium and vitamin D,** either through diet or ask your doctor about supplements. These foster bone health.
- **Don't drink more than two alcoholic drinks a day.** Too much alcohol can lead to confusion and memory loss.
- **Drink plenty of water** to help prevent constipation.
- **Go to the bathroom regularly,** and don't ignore the urge to have a bowel movement. Do Kegel exercises to strengthen pelvic muscles.
- **Stay mentally active.** It might help keep memory loss at bay.
- **Get enough sleep** to help you shrug off the effects of stress.
- **Be sociable.** Interaction with others can help ward off depression and stress.

More Online

For more information about healthy aging, visit the National Institutes of Health "Senior Health" website at <http://nihseniorhealth.gov/>