

The Official Longevity Test

People age biologically and chronologically. Chronological age measures the amount of time that has gone by since birth. Most of us can distinguish an elderly person from a young person. We can even categorize what age range a person might fall into. But what about a person who is 65 but looks as if he's only 45? Or a person who is 80 but functions as well as a 60-year-old? This is biological age or functional age; we all age biologically at different rates. As we have seen, age changes affect different parts of our body at different times. These age changes occur in the DNA, tissues, organs and hormone levels, as well as in every component of the human body. This variance in our biological "clock" can help explain why one 80-year-old may be able to work during the day, go bicycling in the afternoon, and garden on the weekends, exerting more youthful qualities than another 80-year-old who may, biologically, be 80 or even 90 years old. A comprehensive battery of metabolic tests and complex laboratory analyses is necessary to accurately determine your individual biological age.

The purpose of this test is to emphasize how extremely useful and important it is to recognize some of the basic markers and risk factors for premature aging. Through the test presented, you will be able to detect what changes you need to make for longevity—the period of time we can expect to live, given the best of circumstances.

The rationale for the Longevity Test is as follows:

Average life expectancy in the world's advanced countries is rapidly approaching 80 years (85 if you are a woman recently born in Japan). A recent issue of *Science* magazine reported that with the currently expanding life spans of modern man, all it would take for the average life span to reach 99.4 years is the elimination of heart disease, cancer and diabetes.

We now know what causes the majority of age-related disease. We know what mechanisms lead to almost all cases of atherosclerotic heart disease and how to prevent it. For those with heart disease too advanced to treat by diet and life style adjustment, modern methods of heart bypass, laser-created collateral blood flow, coronary sinuses, balloon angioplasty, artificial hearts and other highly developed techniques now offer a second chance for life and a healthy heart.

Cancer is slowly yielding to modern medical innovation. Ninety percent or more of all cancers are fully curable (not just five year survival rates, but a total cure) if detected at Stage 1—usually the size of a pea or smaller. Even better, new analysis of cancer etiology shows that 90 percent of all cancers are environmental in origin. Therefore, your chances of cancer are only one in five if you don't smoke, avoid cancer promoters in food (nitrosamines, fats), and limit exposure to radiation and other environmental

toxins. Your chances for avoiding cancer also greatly improve by supplementing your diet with antioxidants and DNA-repairing nutrients.

Diabetes, especially adult-onset diabetes, is also coming under control thanks to improved methods of early detection and endocrine stabilization and repair. Artificial pancreas and islet cell implants have already cured dozens of people with severe insulin-dependent diabetes. In fact new glucose control medications should soon eliminate this disease as a major overall risk factor.

Is the possibility of a 120-year life span far behind?

The new reality for those age 35 and younger is a healthy life span of 120 and beyond (assuming current advances in biotechnology, genetic engineering and medicine continue at their present rate). And 100 years is an expected average life span for those 55 and younger. For those over 55, researchers are cautiously only predicting an 85-year advanced life span (average life span is interpreted as meaning that 50 percent will die before the specified age and the other half will live beyond that age). Therefore, it is not unreasonable—and history may ultimately prove us somewhat conservative in our projections—for those who live the healthiest of lives and life styles to score a potential maximum expected life span of 150 on this test. Again, remember that our predictions are dependent on biomedical technology advancing with the age wave.

We recommend taking the whole test now, then taking it again in three months, when you've had a chance to integrate some of the suggestions in this book into your own anti-aging program. You can continue retaking the test every three months, as an incentive to keep yourself on the path to longevity and to see what changes you've made overall.

Allow yourself from 30 minutes to an hour to take this test. Don't mull over each question, but don't rush through anything either. Be completely honest. This is a self-test for you to learn which of your habits work toward your longevity and which do not.

The Longevity Test is an educational experience, not cold, hard, objective, scientific analysis. Regardless of what you score, chances are you can do better with simple modifications to your diet, life style, environment and mental attitude. The rewards are very significant in terms of a longer, healthier, happier and more vibrant life. Remember, it's never too early or too late to stop the clock on the aging process.

Test Tip: If you aren't sure about an answer or just don't know, the answer most likely is no.

Good luck and long life!

PART A

GENDER

Male-5 _____
Female+6 _____

AGE

0-29+10 _____
30-55+5 _____
55-65+1 _____
65 or older-10 _____

HEREDITY

Any grandparent lived to be over 80 (limit 4)+1 _____

Average age all four grandparents lived to:

60-70+3 _____
71-80+4 _____
Over 80+6 _____

FAMILY HISTORY

Either parent had stroke or heart attack

before age 50-10 _____

A family member (grandparent, parent, sibling) who
prior to age 65 has had any of the following:

Hypertension-2 _____
Cancer-2 _____
Heart disease-2 _____
Stroke-2 _____
Diabetes-2 _____
Other genetic diseases-2 _____

SUBTOTAL A: _____

PART B

FAMILY INCOME.....
0-\$9,000 -10
\$10,000-\$18,000 -5
\$19,000-\$30,000 +1 _____

+ 1 for each additional \$20,000, up to \$200,000

EDUCATION
Some high school (or less) -7
High school graduate..... +2
College graduate..... +4
Postgraduate or professional degree +6 _____

TEMPERAMENT
Others would describe your general mood-temperament as follows:
Calm yet alert +3
Laid-back and passive -3
Angry, easily perturbed or annoyed..... -10 _____

OCCUPATION (Choose one).
Professional +3
Self-employed +3
In health care field..... +2
Over 65 and working..... +3
Clerical or support..... -1
Shift work..... -2
Unemployed -3 _____

Probability of career advancement +1 _____

Regularly in direct contact with pollutants,
toxic waste, chemicals, radiation,
or carry a firearm to work -10 _____

WHERE YOU LIVE
Large, congested, urban, industrial center..... -4
Rural or farm area +2
Area with air-pollution alerts..... -5
High-crime area -3
Little or no crime area..... +2
Home has tested positive for radon -2 _____

Total commuting time to and from work:
 0-1/2 hour +1
 1/2 hour-1 hour 0
 -1 for each 1/2 hour over 1 hour _____

Within 30 min. of major medical/trauma center..... +1
 No major medical/trauma center in area-1 _____

SUBTOTAL B: _____

PART C

HEALTH STATUS Present overall physical health:

Excellent-almost never ill
 feel great most of the time +6

Good-sick 10 days or less/year,
 feel good most of the time+4

Fair-sick 11 days or more/year,
 feel okay but low energy.....-2

Poor-sick 20 days or more/year,
 feel average to low energy -10 _____

Blood Pressure (if measured within the last year)

Normal: below 140/90 mmHg.....+3
 Borderline: 140/90 to 160/95.....-5
 High: Top (systolic) above 160 and/or
 bottom (diastolic) above 95-10
 Don't know-5 _____

Cholesterol: Low cholesterol (under 200).....+5
 Moderate Cholesterol (200-240).....-2
 High cholesterol (over 240).....-10
 Don't know-5 _____

HDL Cholesterol 29 or less-10
 30-45 0
 over 45 +8
 Don't know-5 _____

Do you or a close family member have diabetes?

Yes -4
 No..... 0 _____

INSURANCE COVERAGE

Have comprehensive medical insurance coverage +2
Able to use physicians of your choice +2
Insurance limits your physician choices.....-5
Have no insurance.....-7 _____

TOBACCO (1 pipe=2 cigarettes, 1 cigar=3 cigarettes)

Never smoked +7
Quit smoking +3
Smoke up to one pack/day -7
Smoke one to two packs/day -10
Over two packs/day..... -20 _____

Pack-years smoked(number of packs smoked/day, times
number of years smoked)

7-15 -5
16-25..... -10
Over 25 -20 _____

ALCOHOL

(Daily consumption of 1 beer or 1 glass of wine= 1.25 oz. alcohol)

No alcohol consumption0
1.25 oz./day or less +6
Between 1.25 and 2.5 oz./day -4
-1 more for each additional 1.25 oz/day..... _____

EXERCISE (20 min. or more moderate aerobic exercise)

5 or more times/week..... +10
4 times/week+6
3 times/week+3
2 times/week+1
No regular aerobic activity.....-10 _____

How many flights of stairs (about 12 steps) do you climb each day?

1-50
6-10..... ;+1
More than 10.....+3 _____

Work requires regular physical exertion

or at least two miles walking/day+3 _____

+ 1 more for each additional mile walked/day _____

Sedentary work/not much walking or stair climbing-6 _____

After taking a brisk walk, do you feel any of these symptoms:
racing heart, irregular heartbeat or chest pain?

Yes-15
No..... 0 _____

**Note: If yes, see your doctor before continuing any exercise program.*

Need more than two pillows to sleep comfortably because
of discomfort or breathing while lying on back-12 _____

WEIGHT Maintain ideal weight for height +5
 5-10 lbs. over ideal -6
 11-20 lbs. over ideal.....-10
 21-30 lbs. over ideal.....-22 _____

 -1 more for each additional 10 lbs.....

 Underweight 5-10 lbs +5
 11-20 lbs-15 _____

Determine your waist-to-hip ratio as follows:

Measure your waist (W) and hip (H) in inches.

Divide your W measure by your H measure. W/H=ratio

Women: Your ratio is 0.8 or greater..... -5

 Your ratio is 0.79 or less +3

Men: Your ratio is 0.96 or greater..... -12

 Your ratio is 0.95 or less +12 _____

NUTRITION

Eat a well-balanced diet
Yes +3
No -3 _____

Regularly eat meals at consistent times
Yes..... +2
No-2 _____

Snack or eat meals late at night..... -2 _____

Eat a balanced breakfast..... +2 _____

Eat fish or poultry as primary protein source
(almost replacing red meat, once/week or less)+5 _____

Eat at least 5 servings of
green leafy vegetables/week +3 _____

Eat at least 5 servings of fresh fruit or juice a day
Yes..... +2
No -1 _____

Try to avoid fats
Yes..... +2
No -5 _____

Fifty percent of meals consist of
fried take-out foods, prepackaged
or precooked foods..... -8 _____

Eat some food every day that is high in fiber (whole-
grain bread, fresh fruits and vegetables)
Yes..... +2
No -3 _____

Take a daily multivitamin or mineral supplement which
includes at least the following:
Vitamin A/beta-carotene (5,000 IU), vitamin E (400 IU),
vitamin B-complex (50 mg), zinc (30 mg),
selenium (100 mg) and vitamin C (500 mg)
Yes +10
No -10 _____

Women: Take calcium supplement..... +3 _____

Do you get colds or other infections more than
once every eight weeks?
Yes -6
No 0 _____

Does it take a long time to get over a bad infection?
(For example, do your colds typically
last longer than two weeks?)
Yes..... -6
No 0 _____

Do you need antibiotics three times/year or more?
Yes -8
No 0 _____

- Are your lymph nodes often enlarged?
 - Yes..... -4
 - No..... 0 _____

- Regularly use sunscreen and avoid excessive sun..... +2 _____

- Subscribe to health-related periodicals..... +2 _____

- Actively involved in a life-extension, prevention
or comprehensive wellness program +5 _____

SUBTOTAL C: _____

PART D _____

ACCIDENT CONTROL

- Always wear a seat belt as driver and passenger
 - Yes..... +6
 - No..... -6 _____

- Never drink and drive or ride with
a driver who has been drinking +2 _____

- 10 for each arrest for drinking while under
the influence of alcohol in the past 5 years..... _____

- 2 for every speeding ticket or accident in the past year _____

- 1 for each 10,000 miles per year driven over 10,000 _____

- Primary car weighs over 3,500 lbs +10
 - Subcompact..... -5
 - Motorcycle -10 _____

- 2 for every fight or attack you were involved in,
or witness to, in the past 3 years _____

- Smoke alarms in home..... +1 _____

PREVENTIVE AND THERAPEUTIC MEASURES

| | | |
|--|-----|-------|
| Comprehensive physical exams and blood tests (every 3 to 4 years before 50, every 1 or 2 years over 50)..... | +3 | _____ |
| Women: Yearly gynecological exam and Pap smear | +2 | _____ |
| Monthly breast self-exam..... | +2 | _____ |
| Mammogram (35-50, every 3 years; over 50, every year)..... | +2 | _____ |
| What is your menstrual status? | | |
| Still menstruating | +3 | |
| Went through natural menopause at 41 or older..... | +1 | |
| at 40 or younger | -5 | |
| Underwent total hysterectomy before 41 | -8 | |
| at age 41 or older | -4 | |
| Postmenopausal and take oral estrogen supplements..... | +5 | _____ |
| Men: Genital self-exam every 3 months | +1 | _____ |
| Rectal or prostate exam (yearly after age 30)..... | +2 | _____ |
| All: Rectal exam and tested for hidden blood in stool (over 40, every two years; over 50, every year)..... | +2 | _____ |
| No rectal exam and test by age 50..... | -4 | _____ |
| Well-formed bowel movement 1 or 2 times/day without difficulty | +3 | _____ |
| Constipation and bowel movement less than once/day | -10 | _____ |
| Irritable bowel disorder or other problems and elimination | -7 | _____ |
| If over 50: Sigmoidoscopy of the lower bowel every 3 years.... | +2 | _____ |
| Have a suspicious skin lesion that hasn't healed in six weeks or that keeps growing | -10 | _____ |
| SUBTOTAL D: _____ | | _____ |

PART E _____

CHANGEABLE PSYCHOSOCIAL FACTORS

| | | |
|--|-----|-------|
| Married or in long-term committed relationship..... | +10 | _____ |
| Not in any long-term relationship | -6 | _____ |
| Satisfying sex life twice/week or more | +4 | _____ |
| Unsatisfying sex life | -10 | _____ |
| Children under 18 living at home | +2 | _____ |
| -1 for each 5-year period living alone | | _____ |
| No close friends | -10 | _____ |
| + 1 for each close friend (up to 3)..... | | _____ |
| Active membership in a religious community or volunteer organization | +2 | _____ |
| Have a pet animal | +2 | _____ |
| Regular daily routine (an orderly day, e.g., wake up at 7:00, breakfast at 7:30, work by 8:00, etc.) | +3 | _____ |
| No regular daily routine..... | -10 | _____ |
| Hours of uninterrupted sleep/night: | | |
| Less than 5 | -5 | |
| 5-8..... | +5 | |
| 8-10..... | -7 | |
| No consistent sleep time | -5 | _____ |
| Regular work routine | +3 | |
| No regular work routine..... | -5 | _____ |
| -2 for every 5 hours worked over 40 in a week..... | | _____ |
| Take a yearly vacation from work (at least 6 days) | +5 | |
| No yearly vacation in past two years | -5 | _____ |
| Regularly use a stress management technique (yoga, meditation, music, etc)..... | +3 | |
| No stress management program..... | -4 | _____ |

SUBTOTAL E: _____

PART F

CHANGEABLE EMOTIONAL STRESS FACTORS

N=Never

R=Rarely

S=Sometimes

A=Always (or as much as possible)

| | N | R | S | A |
|---|----|----|----|----|
| Generally happy | -2 | -1 | +1 | +2 |
| Have and enjoy time with family and friends | -2 | -1 | +1 | +2 |
| Feel in control of personal life and career | -2 | -1 | +1 | +2 |
| Live within financial means | -2 | -1 | +1 | +2 |
| Set goals and look for new challenges | -2 | -1 | +1 | +2 |
| Participate in creative outlet or hobby | -2 | -1 | +1 | +2 |
| Have and enjoy leisure time | -2 | -1 | +1 | +2 |
| Express feelings easily | -2 | -1 | +1 | +2 |
| Laugh easily | -2 | -1 | +1 | +2 |
| Expect good things to happen | -2 | -1 | +1 | +2 |
| Anger easily | +2 | +1 | -1 | -2 |
| Critical of self | +2 | +1 | -1 | -2 |
| Critical of others | +2 | +1 | -1 | -2 |
| Lonely even with others | +2 | +1 | -1 | -2 |
| Worry about things out of your control | +2 | +1 | -1 | -2 |
| Regret sacrifices made in life | +2 | +1 | -1 | -2 |

SUBTOTAL F:

TOTAL YOUR SCORE _____

SUBTOTALS:

A _____ + B _____ + C _____ + D _____ + E _____ + F _____

= **GRAND TOTAL** _____

After you've added all of the subtotals together, divide the grand total by 3 or multiply by 0.333. *This is your score.*

Follow the chart for the next step.

| AGE | | | |
|-------|-------|------|---------------|
| 1—30 | Age + | 30 + | (score x 2.0) |
| 31—46 | Age + | 2 + | (score x 1.5) |
| 47—61 | Age + | 10 + | (score x 1.2) |
| 62—73 | Age + | 5 + | (score x 1.0) |
| 74—84 | Age + | 3 + | (score x .50) |
| 83+ | Age + | 1 + | (score x .20) |

This final number is your potential estimated life span.

How did you do? Did you learn something about factors in your life that might be making you "old before your time" or that are sapping your youthful energy, health and vigor?

Remember, there are no "right" or "wrong" answers to these questions. We're not suggesting that you move to the country or give up your high-powered job. And a life without at least some of the "life-stress" elements we listed would be an empty life indeed! The point is not to judge yourself, but rather to become aware of the things that may be placing a strain on your system. Then you can choose which risk factors or stressors are worth keeping and which need to be corrected.

We now know a great deal about the physical and emotional conditions for staying healthy and vigorous well into lengthy old age and we hope you have gained a great appreciation of how your life span can be significantly extended. Of course, not all the factors determining your biological age, your health and your life span are within your control. But of those that are, you now have the knowledge you need to make the choices that are right for you.