

From the Author of the  
Bestselling SYMPTOMS,

Sigmund Stephen Miller,

with Julian Asher Miller

and Don Ethan Miller

# LifeSpan Plus I

THE DEFINITIVE  
GUIDE TO  
HEALTH AND  
WELL-BEING  
FOR THE REST  
OF YOUR LIFE

Preface by William Porell, M.D.

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# LIFESPAN PLUS

**The Definitive Guide to Health and  
Well-being for the Rest of Your Life**

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**This book is not intended as a substitute for medical advice of physicians.  
The reader should regularly consult a physician in matters relating to  
his or her health and particularly in respect to any symptoms  
that may require diagnosis or medical attention.**

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## Dedication

*With love to Phyllis,  
whose life is full of the joy and spirit  
we wish for the readers of this book.*

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inception to publication.*

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# PREFACE

by William Porell, M.D.

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It was some time ago while I was actively practicing general surgery in Cambridge, Massachusetts, that Sigmund Miller first asked me to contribute to his new book on health. Later, when I gave up surgery for general medicine with a patient population of older individuals, and as I was preparing to attend a conference on geriatrics, Sigmund suggested that I also write a preface to the book, which was about aging and longevity, a topic quite central to my practice.

I was also surprised to learn that the lean and energetic man making this request was by now in his early 70s, several years older and in much better shape than I. In short, he was one of those rare individuals who has managed to become old without becoming "aged." The art of achieving a state similar to his is what **LifeSpan Plus** is principally about.

Because the subject of aging is of major concern to all people, there is a growing demand for accurate and useful information about the process of aging, as well as the measures one can take to safely enhance the quality and duration of the "second half of life." The Millers have responded to this need with an intriguing and extraordinarily comprehensive text with a useful format and a readable style.

There are two basic sections to this book. The first part articulates the process of aging, and the factors that contribute to speeding up or slowing down the aging process. It is written to inspire as well as to inform. The advocacy of a healthy multifaceted life-style, ideally developed earlier in life but carried on vigorously into

old age, emerges as the Millers' most significant statement. The recipes and ingredients offered are scientifically sound—no secret nostrums, pills, or magic fountain of youth, no promise of immortality.

The second and third parts concern a list of diseases common to old age cross-indexed with the symptoms which can be associated with them. This is designed as a reference text to help the reader understand and cope with the warning signs of declining health, to foster early diagnosis, make better use of his personal doctor, and perhaps even prevent the unnecessary use of a hospital emergency room. It is not intended to alarm, foster hypochondria, or supplant the physician.

**LifeSpan Plus** is not a book about the easy, miraculous ways one can solve the problems of an extended lifespan. Alas, at our current state of knowledge no such solutions have been (or are even close to being) medically validated. The reader who seeks such easy and unfounded solutions should stop here.

The reader who is willing to be convinced that old age is not a disease, and who would like to pursue new dimensions in quality and breadth of life will profit by reading on.

As for me, I had best push away from the table, put on my running shoes, and head outside before it's too late.

A votre sante.

William J. Porell, M.D.  
Winchester, Mass.

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# PROLOGUE: THE POSITIVE APPROACH TO GROWING OLDER

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The quality of your life after 50—and to some extent, its duration—is yours to determine. While certain factors such as your heredity, your health history, or your financial status at the moment may be beyond your control, the overwhelming majority of personal issues related to health and longevity are *within* your control.

The latest research in gerontology, combined with the “unscientific” example of highly productive, superbly athletic men and women in their 60s, 70s, and 80s, is leading to revolutionary changes in our concepts of aging. We have learned that the supposedly normal declines in physical strength, cardiovascular function, breathing capacity, and mental acuity that we anticipate with growing older are not biological imperatives but much more the result of disuse and negative expectations. Those who continue to exercise mind, body, and emotions into their seniority prove that the declines Nature has instilled in us are minimal, gentle, and in many areas (intelligence, for example), relatively insignificant. We now know that there is no upper age limit for physical pleasures, joie de vivre, love, sexuality, humor, creativity, meaningful work, important relationships, and sheer fun—all the things that make life worth living. How you live in the decades after age 50 is more a product of what you feel inside and what you do about it than a result of something that “happens to you.” As the great sage Satchel Paige once inquired: “How old would you be if you didn’t know how old you was?”

The big difference, finally, between those who get old in their 60s and 70s (or earlier!), and those

who continue to be active and energetic into their 70s, 80s, and beyond, is that the latter group extends their spirit to the very end of their lives. Many people allow their idea of themselves as vital, important beings to dwindle as they approach retirement age, and to dissipate rapidly after that point; it is no accident that their physical and mental functions decline correspondingly as their psychological life force wanes. Those who live long and well, however, invariably seem to have extended their persona to encompass the years of seniority, and to continue their thrust for life with no self-induced diminution. As Walt Stack, the redoubtable 75-year-old ultramarathoner and triathlete, proclaims: “I may be slowing down a bit, sure—but the important thing is that I’m still out there.”

Old age is a period of helplessness and dependence only if you allow it to become so. The stereotype of the bent, shuffling old man or woman is a false picture: Think of these vital personalities—Picasso painting masterfully at 90; Grandma Moses at 100; Verdi composing *Falstaff*, one of his greatest operas, at 80; Toscanini conducting at 87; Rubinstein giving his most brilliant piano recitals in his 90s; George Burns, Bob Hope, and Ruth Gordon delighting audiences in their late 80s. Add to these the thousands of unsung heroes and heroines, who are busy working, exercising, and living fully regardless of their chronological age. Many individuals have made their greatest contributions in the years when they were supposed to have retired, such as Professor Benjamin Duggar, forced to retire from the University of Wisconsin, who went on to join

the Lederle Drug Company and in his 70s discovered tetracycline.

Old age is what you make of it: Samuel Whittemore of Arlington, Massachusetts, during the Revolutionary War killed three British soldiers—at the age of 80. For his efforts he was caught by the redcoats, shot, bayoneted, and left for dead. He recovered and lived to be 98.

Further, it may come as a surprise to most people, but the fact is that there need be no major de-

cline in intelligence in old age—for those people who remain physically healthy and mentally active. The latest research indicates that the loss of brain cells (neurons) with age is not as dire a development as was once thought. Although it is true that we lose thousands of brain cells every day, starting at an early age, this loss is virtually meaningless when compared to the total number of brain cells with which we are born: more than 10 billion.

We need not delude ourselves; there are as-

**TABLE** **Factors That Affect Aging**

The Positives	The Negatives
Exercise: Especially walking or some other aerobic exercise, a minimum of 3 times a week for 30 minutes or longer	Sedentarism (literally, spending most of your time sitting)
Diet: A healthy, varied diet including a great deal of fresh fruits and vegetables, whole grains and other fiber, with most protein derived from poultry, fish, and grain-legume combinations	Inadequate nutrition; heavy consumption of animal fats (red meat, butter, etc.); excessive consumption of salt, sugar, caffeine, chemical additives
Sleep: A regular normal sleeping pattern, between 7 and 8 hours a night	Chronic insomnia or other sleep abnormalities
A cheerful, positive outlook and attitude	Chronic depression, hopelessness
Laughter, joy, fun	Excessive stress—whether physical, mental, emotional, environmental
Keeping active; meaningful work	Boredom; lack of meaningful work
Social involvement with others—family, friends, organizations, groups	Isolation; living alone
An outlet for sexual expression that fulfills your needs	Constant sexual dissatisfaction
Learning and experiencing new things	Environmental stresses—noise, crowding, clutter
Regular medical attention from a physician who is well versed in the medicine of aging and is aware of the holistic factors, such as diet, exercise, and attitude	Heavy dependence on medication
Moderate consumption of alcohol—the equivalent of one or two glasses of wine (but not more) per day	Blood pressure over 145/85; cholesterol level over 200; resting pulse above 80
Pride in oneself and one's accomplishments; enthusiasm, curiosity, interest in life	Heavy drinking—more than 2 or 3 drinks per day
Emotional expression—not keeping feelings bottled up inside	Carelessness, aimlessness, decline in personal hygiene
Faith of some kind—in God, in the Life Force, in humanity, in yourself	Smoking
	Obesity—more than 20% over ideal weight
	Excessive exposure to X rays and other radiation, air pollution, water pollution, toxic chemicals

pects of aging that are unpleasant. The advance of years does diminish the integrity of the body—the immune system weakens, the velocity of nerve-signal transmissions decreases, short-term memory may suffer, adaptation reserves decline. But none of these factors need incapacitate us. We can keep the effects of age from overwhelming us, and extend our period of healthy, vital middle age by a decade or longer.

In short, aging optimally involves two things: the first is consciously undertaking the healthy, life-promoting strategies that we now know can improve the functioning and resilience of *all* body-mind systems; and the second is to avoid those factors which are known to damage health and hasten decrepitude. The maintenance of your personality—or its decline—is completely up to you. You can slip into slothfulness of mind and body, or you can remain alert, vital, and bright—perhaps brighter than ever, because of your greater experience. The choice is in your hands. Consider the following table for examples: Have the majority of the choices you've made so far put you in the positive or the negative column?

Perhaps the best model for optimal aging comes from the theater. Assume that your life is a three-act play, a brilliant passionate drama replete with battles, romances, victories and losses, love and laughter. Divide it as you like—for example, Act 1 from birth to age 30; Act 2 from ages 30 to 60;

Act 3 from 60 onwards. Ask yourself: Does a good playwright dwindle a magnificent drama down to a tepid, uninteresting third act? Does a great actor or actress give a marvelous performance in Acts 1 and 2, only to shuffle through Act 3 at half-volume and low energy? Of course not! Yet think about it: *you* are both the playwright and the starring performer in your life story. And Act 3, the third age of life, should be as full of fire, drama, action, feeling, humor, and power as you can make it.

Victorious aging includes many health-promoting, life-extending strategies we will discuss in this book: a healthy diet, abundant exercise, intellectual stimulation, social interaction, and proper medical attention. But most important is your own *personal attitude* about how you want to live the rest of your life. If you seize your existence with passion, determined to live to the fullest every year that you are on this earth, you may get old but you will never be defeated by age. Your spirit will conquer.

In his masterwork *The Odyssey: A Modern Sequel*, Nikos Kazantzakis has written a now-famous passage in which the narrator addresses Death, and declares that Odysseus has fooled him, for he'll find nothing of value left when he comes to take the great adventurer, nothing except the "dregs that in the ceaseless strife of his staunch body have not found time as yet to turn from flesh and blood into pure spirit, lightning, deeds, and joy."

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# FOREWORD: MYTHS OF AGING

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One of the major problems that older persons must overcome, both individually and as a group, is the negative stereotype of old age. In our society today, old age is regarded as a disease, an era of reduced capacities, reduced *personhood*, lowered esteem, increasing decrepitude, and uselessness. What is most insidious about this general *ageism* in America (and much of the Western world) today is that it has been internalized and accepted by older persons themselves. We regard ourselves as being at the end of our mature "middle years" in our 50s and 60s; from then on, it is a downhill slide, trying to stave off infirmity and senility (and death) as long as possible. We *believe* that we will be reduced in stature, capacity, and ability, after 60 or so years, and it is this very belief that makes us more inactive, withdrawn, depressed, de-sexed, and aged.

Where can we look for models, images, and attitudes about aging and the older person that are positive and progressive? There are three major sources:

## Other Cultures

In many other cultures, age is not treated as a source of shame but as an achievement warranting great respect, honor, and dignity. In China, Japan, Korea, and most other Asian countries, old people have traditionally been revered as sages, teachers, gurus, masters of the arts of T'ai Chi, yoga, meditation, the tea ceremony, and the like. In many "primitive" (i.e., nonindustrialized) societies, older

people are accorded great respect and authority within the tribe or community, on the assumption that their age and experience has afforded them wisdom and perspective impossible for younger people to attain. Even in their religion, myths, and legends, the old wise man, old wise woman, and the shaman (medicine man or woman), are depicted as old, even ancient, but possessed of knowledge and spiritual powers much needed by the rest of the population. And in modern nonindustrial societies such as the Abkhazians of the Caucasus region (southern USSR) and the Vilcabambans of Ecuador, old age is considered the prime of life. There people marry, work, drink, love, and enjoy respect and authority within their communities into their 80s, 90s, and beyond. (One of the problems with estimating ages in these so-called centenarian communities is that old age is so highly regarded that many older people exaggerate their age, so that a man of 96 will say that he is 110 in order to aggrandize himself!) There is no doubt that ageist attitudes in America and other youth-oriented, industrialized nations are not shared by the rest of the world. And a good thing, too—those who have lived for many years are a precious resource of experience, tradition, and personal energy that only the most foolish and heartless cultures choose to cast aside.

## The Best and the Brightest

Within our own society, there have always been remarkable men and women who ignore or shatter

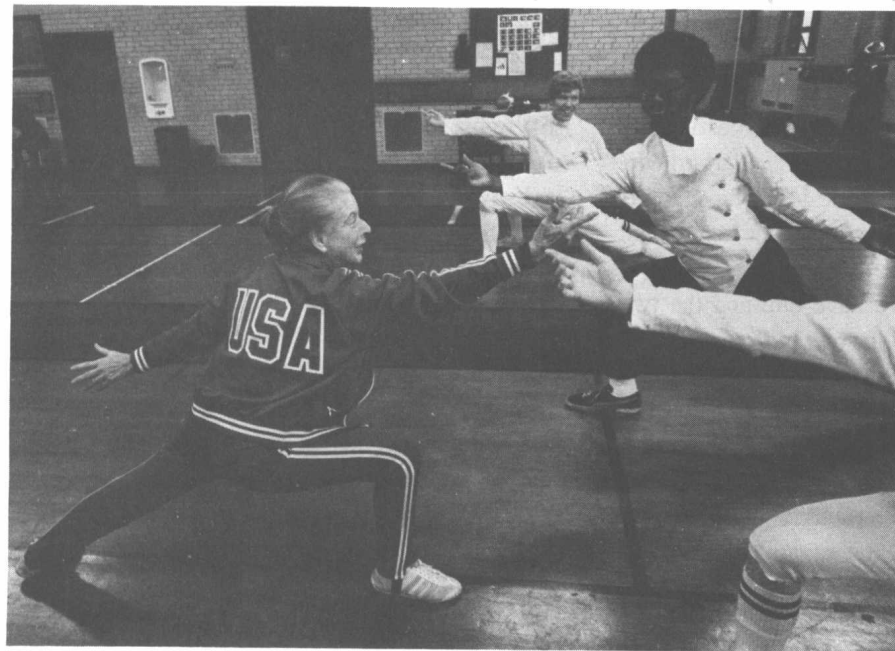
the stereotypes about aging, and live and work at high intensity in their 70s, 80s, and 90s. *These* are the people who should be our models of what an old person is capable of achieving: Alberta Hunter, until her mid-80s, belting out the blues and captivating audiences; Linus Pauling, at 80, going strong for vitamin C and nuclear disarmament; Maggie Kuhn, Pablo Casals, Sarah Caldwell, Vladimir Horowitz, and many, many others. Some are celebrities in music, the arts, theater, and film; others are unknown to the general public, but have nonetheless set an example by their forward-looking, forward-moving, vital approach to life in the later years. No “sunset years,” no “golden age” or “senior citizen” status for these people: they find life exciting, and they *make* it exciting and enjoyable through their attitudes and life-style. Perhaps one more example is in order. A recent article described Albert H. Gordon, Harvard, class of 1923, who *ran his first marathon* in London in 1982 *at the age of 80*. “It was the greatest accomplishment of my life,” he said afterward. How many of us can imagine having the greatest experience of our

lives (whether or not it’s an athletic achievement such as running 26.2 miles nonstop) at the age of 80?

## THE INNER IMAGE

We all, consciously or unconsciously, go through life with an inner self-concept—an image of who we are that is not limited by the work we do, our social status, or the details of daily life. In this personal mythology, one may be a hero or heroine, a warrior, a nurturing figure, a healer, a seeker, a creator, a leader. Whatever it is, we possess within us a dynamic image of *what we are doing with our lives*; this has sustained us through the past 50, 60, or 80 years, through adversity, hardship, sorrow, loss, successes and failures, adventures and disasters. And no matter what our age or present status, that positive, motivating self-image still exists inside us. Though it may be modified and revised somewhat for the current phase of our lives, since our purposes and drives are different at 50 or 70 than they were at 20 or 30, nonetheless each of us

(STYLING © JILL FREEDMAN)



*At 69, a limber and alert college fencing coach.*

TABLE

## Images of Older People

Negative Images	Positive Images
The old fogey	<i>The "old lion."</i> Still fierce, fighting to the end with every ounce of his (or her) powers
The dirty old man	<i>The sage, or old wise man or woman.</i> Clear-headed, compassionate, spiritually attuned, at peace with him- or herself
The old hag	<i>The artist/performer.</i> Has ideas, talent, and drive toward self-expression that are undiminished by age, independent of time
The crabby old person	<i>The matriarch or patriarch.</i> Occupies an all-important place at the head of a family (or community). Keeps the family together and moving in a good direction
The senile old fool	<i>Your own positive self-image</i>
The crazy old man or woman	<i>Key words:</i> fierce, alert, indomitable, venerable, wise, experienced, intelligent, compassionate, strong, strong-willed, understanding, humorous, perceptive, philosophical, serene, caring, nurturing, active, principled, morally concerned, loving, graceful, joyful, unafraid
The helpless, frail old person	
The nasty, stingy old person	
The old woman foolishly trying to appear young	

*Key words:* crabby, foolish, dotty, senile, helpless, doddering, lecherous, crazy, nasty, stingy, miserly, frail, frightened, weak, senile, pathetic, boring

*Key words:* fierce, alert, indomitable, venerable, wise, experienced, intelligent, compassionate, strong, strong-willed, understanding, humorous, perceptive, philosophical, serene, caring, nurturing, active, principled, morally concerned, loving, graceful, joyful, unafraid

has an inner reason or reasons for living. We have things we want to experience and accomplish. So, the image of yourself, energetically pursuing your purposes and goals, living your life fully, *as you want yourself to be*, is the third source of positive aging, which defies the negative attitudes society may give us, or the doubts we may harbor ourselves. As long as we are alive, we all have a personality, a life force within us that wants expression and activity.

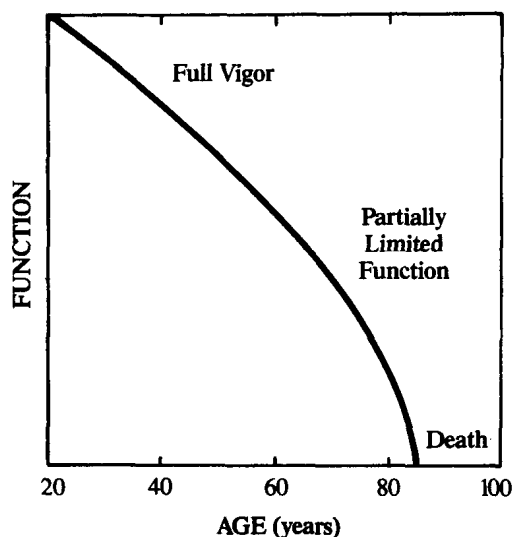
In the table above, we have outlined the two competing sets of images, or myths if you will, of the older person. On the left side are the negative images, the stereotypes accepted by many Americans and often enhanced by media representations. Regardless of their basis in reality (for some old people *are*, of course, crabby, senile, mean-spirited, and unpleasant), the negative images can become self-fulfilling. If these are our *only* ideas and models of what it is to be old, then of course we will wind up emulating them. On the right side are some alternatives: positive images of old age

that provide energy, satisfaction, and motivation to live optimally. Compare the two lists. Where do you put yourself? Where do you think others would put you? More important, with which of the positive images in the right-hand column do you identify most strongly? Which would you like to be? And how can you begin *now* to act out that positive self-image?

There is another set of attitudes and concepts in which the accepted, typical thinking about aging reflects a negative, debilitating image. This concerns the paradigms of the aging process itself. A paradigm is a model, a form, an outline that gives us a way of looking at a particular subject. With respect to aging, the widely accepted paradigm looks something like the illustration below.

In other words, aging is seen as a steady decline in all functions, physical and mental, from the peak of youth on. According to this paradigm, the man or woman of 70 *must* be weaker, less mentally acute, and less healthy than the same person at 55. Acceptance of these "facts" sets up an ex-

## Steady decline from youth to old age



(Adapted from *Vitality and Aging*, by Crapo and Fries, W. H. Freeman, 1981)

pectation of decline—among aging individuals themselves, and among the doctors and other professionals who treat them (“What do you expect? You’re getting old”), as well as family and friends.

This paradigm, however, is *not* correct, because it describes only what is typical and average among the elderly in our sedentary, ill-exercised, often ill-nourished, socially ageist society. In very important respects, the paradigm—and the reality of getting older—can be altered.

## A NEW OPTIMISM

In many areas, it is possible to maintain or even *increase* one’s capacity with the right kind of effort, regardless of age. For example, sedentary people, heavy eaters, smokers, and high-stress workaholics who decide to take control of their health can make definite, objectively verifiable improvements in their physical and mental function-

ing at any age. Through exercise, dietary modification, habit control, and stress-reduction training, they can lower their blood pressure, improve cardiovascular endurance and lung function, improve muscle tone, lower body fat content, and in virtually every respect become healthier and stronger than they were 5 years ago.

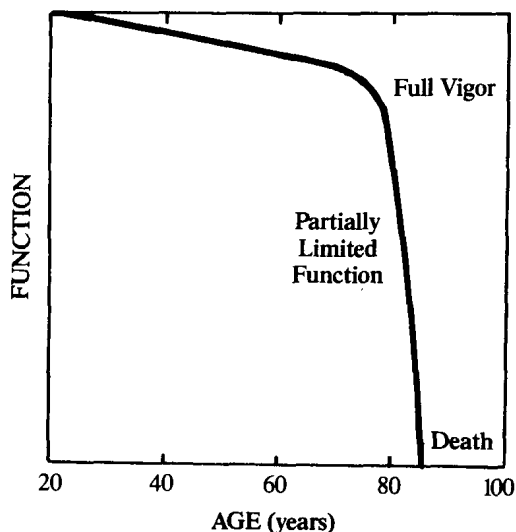
Even for those who are already in good health, capacities can be improved with exercise, in defiance of the aging paradigm described above. Alex Ratelle, for example, was already an excellent Masters runner in 1975 at the age of 50, with a 10-kilometer time of just under 35 minutes and a phenomenal marathon time of 2:46 hours. According to the paradigm and the accepted wisdom of medical science, his performance could be expected to decline by about 1 percent per year. Yet, in 1981, at age 56, Ratelle ran 10 kilometer in 33:01 minutes and a marathon in 2:30:39 hours!

Such “turning back” of the clock does not apply only to athletic feats or physical performance levels: energy decline, low alertness, and diminished intellectual capacity are also, in many cases, reversible with the right kind of effort. People who start new jobs after their retirement at 65 invariably become brighter and more stimulating than their contemporaries who simply give up their active involvements. Older individuals who keep their minds alive and creative through exposure to new ideas, contact with a variety of people and places, work, reading, chess, and music (as opposed to the passive blandishments of television and the boring reiteration of the same routine and environment) are often the most intelligent, most creative, most profound thinkers in the world. Such personalities as Ashley Montagu, Linus Pauling, and Margaret Mead come to mind—people whose intellectual capacities grew, rather than dwindled in their late 70s.

But what does this mean? Is it possible, therefore, to live forever, to keep improving—or at least maintaining—one’s physical and mental capacity indefinitely, merely with the right kind of effort? The answer, of course, is no. No one lives forever, and even though the sharp “downhill slide” after



### Optimal aging: vitality sustained into old age



(Adapted from *Vitality and Aging*, by Crapo and Fries, W. H. Freeman, 1981)

60 or 65 can be avoided, eventually every living creature reaches its appointed time; the biological clock built into the cells and organs of the human body reaches its limit. Much has been written recently about research that will extend life, supposedly into the 120-year range and beyond—usually by means of pharmaceutical alterations in the body's biochemistry. Whether such developments will really occur is a speculative matter; what is more clear is that the paradigm of *optimal* aging, as pro-

vided by nature in the healthy individual, looks very different from the accepted paradigm of typical aging described above.

In *this* paradigm, of optimal aging, a person's functions and capacities continue with little or no abatement until, rather abruptly, the whole system weakens and falls apart, and death soon follows. *There is no long 5-, 10-, or 20-year period of agedness and debility!* The 75-year-old man or woman in this model is fully able to work, run, dance, think, create, love, laugh, and enjoy life. There may be minor declines in some areas, but they do not produce infirmity or senility. From nature's point of view, the human animal is still fully able to survive and take care of itself. And when, finally, one (or several) organ or body system ceases to function, it is not as a result of unnatural stresses, poor diet, sedentarism, or environmental toxins, but merely the natural end of the life cycle. Interestingly, modern gerontological research indicates that this natural life span for the human animal lies somewhere between 80 and 100 years—with very few exceptions. So the average person who optimizes all factors relating to his or her health can expect to live heartily, fully, with all functions intact, into the 80s.

In this book, we will provide you with the means to age optimally, according to the second paradigm: not to live forever, but within the normal human life span of 80 to 95 years, to live healthfully, vitally, energetically, usefully, and joyously. And that is the true conquest of aging.