Old but Not Frail: A Matter of Heart and Head

By GINA KOLATA

Mary Wittenberg, the 44-year-old president of New York Road Runners, is a fast, strong and experienced runner. But she races best, she says, when she runs just behind Witold Bialokur. He can run 10 kilometers, or 6.2 miles, in less than 44 minutes and he is so smooth and controlled.

“He’s like a metronome with his pacing,” Ms. Wittenberg says. “I am often struggling to keep up with him and it’s a good day when I do.”

While Mr. Bialokur’s performance would be the envy of most young men, he is not young. Mr. Bialokur is 71.

It is one of the persistent mysteries of aging, researchers say. Why would one person, like Mr. Bialokur, remain so hale and hearty while another, who had seemed just as healthy, start to weaken and slow down, sometimes as early as his 70’s?

That, says Tamara Harris, who is chief of the geriatric epidemiology section at the National Institute on Aging, is a central issue that is only now being systematically addressed. The question is why some age well and others do not, often heading along a path that ends up in a medical condition known as frailty.

Frailty, Dr. Harris explains, involves exhaustion, weakness, weight loss and a loss of muscle mass and strength. It is, she says, a grim prognosis whose causes were little understood.

“It means that some people spend a long time in a period of their life where they have lost function,” Dr. Harris says. “People find that very distressing, and there is a tremendous health care cost.”

Now, though, scientists are surprised to find that, in many cases, a single factor — undetected cardiovascular disease — is often a major reason people become frail. They may not have classic symptoms like a heart attack or chest pains or a stroke. But cardiovascular disease may have partly blocked blood vessels in the brain, the legs, the kidneys or the heart. Those obstructions, in turn, can result in exhaustion or mental confusion or weakness or a slow walking pace.

Investigators say that there is a ray of hope in the finding — if cardiovascular disease is central to many of the symptoms of old age, it should be possible to slow or delay or even prevent many
of these changes by treating the medical condition.

A second finding is just as surprising to skeptical scientists because it seemed to many like a wrongheaded cliché — you’re only as old as you think you are. Rigorous studies are now showing that seeing, or hearing, gloomy nostrums about what it is like to be old can make people walk more slowly, hear and remember less well, and even affect their cardiovascular systems. Positive images of aging have the opposite effects. The constant message that old people are expected to be slow and weak and forgetful is not a reason for the full-blown frailty syndrome. But it may help push people along that path.

Still, it is a view that can lead to blaming the victim, and some scientists at first resisted it. Now, though, more and more say they have been won over by an accumulating body of evidence.

“I am changing my initially skeptical view,” says Richard Suzman, who is director of the office of behavioral and social research programs at the National Institute on Aging. “There is growing evidence that these subjective experiences might be more important than we thought.”

The Walking Test

Eleanor Simonsick’s initiation into the unrecognized debilitations of aging came with a research study she helped set up. The question was whether older people who are relatively vigorous are also longer-lived. As an epidemiologist at the National Institute on Aging, she thought it was time to ask that in a rigorous way.

So she and her colleagues recruited 3,075 apparently healthy people in their 70’s who said they could walk a quarter of a mile with no trouble and climb a flight of stairs. Each was asked to walk up and down a corridor 10 times, for a distance of a quarter mile, maintaining their pace and not stopping to rest.

A quarter of them could not do it. And it was not just a matter of age. The average age of those
who could do it was 73. So was the average age of those who could not. Dr. Harris explained: “I believe most people can amble. But we were asking them to walk as quickly as they could without stopping. That’s what people couldn’t do.”

Some walked so slowly, with tiny steps and labored cadences, that the researchers told them that they could stop because it was clear that they could never finish. Others Dr. Simonsick added, “just said: ‘I’m done. I’m sitting down.’ ”

“It’s very sad,” she added. “It’s not like we put them on a treadmill and cranked it up. You get the sense that they are simply deconditioned.”

The problem became worse. “In the first two years, a third of the group that could walk the quarter mile said they were beginning to have difficulty,” Dr. Harris said. “We thought, ‘Oh, this is impossible.’ ”

But it was real.

The researchers published their data in the May 3 issue of The Journal of the American Medical Association, finding that being unable to walk a quarter mile within five minutes portended troubles. For each minute beyond five, the risk of dying in the next four years increased by a third, the risk of having a heart attack increased by 20 percent, and the risk of having a disability increased by half.

Those who took more than six minutes for the quarter-mile walk had the same risk of dying or having a heart attack as those who could not walk the distance at all, and the effect was independent of age.

That led to the next question. Could teaching people to walk farther and faster prevent their growing so weak they could hardly walk?

Dr. Jack Guralnik, acting chief of the laboratory of epidemiology, demography and biometry at the National Institute on Aging, hopes it can. A new pilot study that he helped direct found that, with training, people could walk faster, improve their balance and more easily rise from a chair. Now he wants to expand that study to explore whether such training helps people retain their ability to walk and improves their health.

Richard J. Hodes, director of the National Institute on Aging is intrigued.

“It would be an extremely expensive study,” Dr. Hodes said, adding that its costs have not been added up. But, he said, if training could keep just 10 percent to 20 percent more people mobile, “I’m sure billions would be saved.”

Staving Off Frailty

Dorothy Bower, 78, used to take walks around the grounds of her assisted living residence in Wilkinsburg, Pa., near Pittsburgh. But no more. In the past six months, Ms. Bower says she has lost her energy. “I make it down the hall and to the dining room,” she says. “I have the feeling
that if I worked at it I would get better, but it’s hard to get the motivation to try harder.”

“It is enough of an effort as far as I’m concerned to get to the door of our room,” Mrs. Bower says. “That takes me about five minutes.”

Mrs. Bower’s problem is frailty, doctors say. It is increasingly common as people age, and its symptoms — losing muscle mass and strength, feeling depleted, walking slowly, losing weight and doing less and less in a day — go together, says Dr. Linda Fried, a geriatrician and epidemiologist at Johns Hopkins who defined and characterized the syndrome. “They are all connected and form a vicious cycle,” she says.

Gerontologists say the full frailty syndrome is uncommon until people reach their 80’s, but its likelihood increases rapidly from then on.

For example, the Cardiovascular Health Study, a national study of more than 5,000 participants 65 and older, found that 9.5 percent of those 75 to 79 were frail. Among those 80 to 84, about 16 percent were frail, and nearly a quarter of those 85 to 89 had the frailty syndrome.

“I would say all 100-year-old people are frail,” said Dr. Anne Newman, a professor of epidemiology and medicine at the University of Pittsburgh. “Most 90-year-olds are frail. And some 80-year-olds are frail.”

Dr. Newman and her colleagues wondered what could be causing frailty in some but not others. They thought of undetected cardiovascular disease. The idea was that blood flow to the heart or muscle or brain could be impeded even if a person had had no overt signs of cardiovascular disease.

It was a new way to think about cardiovascular disease and a new way to think about aging, Dr. Newman said. “With frailty,” she said, “the slowing of gait, the loss of muscle strength, we had chalked up to being totally nonpreventable.”

When Dr. Newman and her colleagues examined participants in the Cardiovascular Health Study they saw evidence that their hunch seemed right. Participants with obvious disease who had congestive heart failure or a heart attack or stroke, for example — were likely to be frail. But those with no symptoms but partly blocked blood vessels seen on scans and other tests were nearly three times as likely to be frail as healthier people. And they became disabled — unable to care for themselves — about five years earlier than people without cardiovascular disease at the start of the study.

The researchers emphasize that cardiovascular disease is unlikely to be the sole cause of frailty. Severe arthritis or osteoporosis, for example, could make people slow down and set the cycle in motion. Strokes, heart attacks, cancer or any number of illnesses could bring on the frailty syndrome. But in explaining frailty among seemingly healthy people, the findings on cardiovascular disease made sense.

“With a lot of people, slow walking is due to poor blood flow in the legs,” Dr. Newman says.
“Then their muscles atrophy.” And reduced blood flow to the brain, she says, can make people feel sluggish and depleted and unable to move quickly.

Cardiovascular disease may be why Mrs. Bower became frail. For 60 years, she says, she has had diabetes, a disease that damages blood vessels. So even though she has not had a heart attack or a stroke, blood flow to her muscles, heart and brain may be impeded, researchers say.

If they are right about frailty, Dr. Newman and others say, then the condition may be prevented or delayed by not smoking and keeping cholesterol and blood pressure levels low and by staying active.

But, the researchers add, their finding may be good news for today’s middle-age people who had the advantage of drugs to control their blood pressure and cholesterol levels before serious damage to blood vessels set in. And many are more active than their parents were when they were middle age.

Dr. Newman, for one, is optimistic.

“I think there will be less frailty and I think it will be delayed,” she says.

Overcoming Stereotypes

At 79, Dr. Robert Butler, still works 60 hours a week. He is president and chief executive of the International Longevity Center, a research and education foundation in New York and a professor of geriatrics at the Mount Sinai School of Medicine. He says he expects nothing less of himself, attributing his vigor in part to his luck in having excellent health and in part to something more subtle. He never bought into the pervasive stereotypes of old age.

Dr. Butler noticed the problem when he was a medical student. He recalls the private names doctors had for the elderly like crock and old biddy. In the decades since, he says, attitudes among doctors and the general public have not really changed. And, he adds, the stereotypes have an effect. “My experience with older people is that they certainly do get cowed by this,” he said.

But how much, and to what extent people get cowed surprised even researchers. It is hard to avoid seeing or hearing demeaning depictions of the elderly. There are greeting cards that make old people the butt of jokes. There are phrases like “senior moment” to describe a memory lapse. Then there are the ways older people are treated. For example, researchers find that people use “elderspeak,” speaking louder and using simpler words and sentences when talking to old people.

Still, when Becca Levy, a psychologist at Yale University, began her work on stereotypes’ effects on the elderly, she was not sure that she would find anything of note. She had examined the area with a study finding that older people in two cultures with a positive view of aging, China and the deaf Americans, fared better on memory tests than older people in the general American population.
Such studies are tricky, though, because there can be hundreds of differences between cultural
groups, and something else could be responsible for the memory differences. So Dr. Levy and
her colleagues decided try a method that was used to study the effects of stereotypes about
race and gender. The idea is to flash provocative words too quickly for people to be aware they
read them.

In her first study, Dr. Levy tested the memories of 90 healthy older people. Then she flashed
positive words about aging like “guidance,” “wise,” “alert,” “sage” and “learned” and tested
them again. Their memories were better and they even walked faster.

Next, she flashed negative words like “dementia,” “decline,” “senile,” “confused” and “decrepit.”
This time, her subjects’ memories were worse, and their walking paces slowed.

Thomas Hess, a psychology professor at North Carolina State University, came to a similar
conclusion about the effects of stereotypes of aging.

In his studies, older people did significantly worse on memory tests if they were first told
something that would bring to mind aging stereotypes. It could be as simple as saying the study
was on how aging affects learning and memory. They did better on memory tests if Dr. Hess
first told them something positive, like saying that there was not much of a decline in memory
with age.

But, Dr. Levy wondered, were there long-term effects of believing the stereotypes of aging? She
found a study that could provide answers, the Ohio Longitudinal Study of Aging and
Retirement. The two-decade-long study included 1,157 people, nearly every resident of Oxford,
Ohio, who was 50 or older and was not suffering from dementia. And it had questions about
beliefs about aging.

It turned out that people who had more positive views about aging were healthier over time.
They lived an average of 7.6 years longer than those of a similar age who did not hold such
views, and even had less hearing loss when their hearing was tested three years after the study
began. The result persisted when the investigators took in account the participants’ health at
the start of the study, as well as their age, gender, and socioeconomic status.

Some like Dr. Suzman were swayed, but Dr. Hodes urges caution. As provocative as the data
may be, he notes, the studies cannot tell for sure what is cause and what is effect. It may be that
people who had negative attitudes about aging somehow knew that they were not really well.

Dr. Hodes confesses that in this case indirect studies may be the best that can be done. To
obtain direct evidence would require randomly assigning some participants to keep hearing
negative comments about themselves as they age and others to hear positive things. “How
ethical would that be?” he asks.

If it is true that perceptions of aging affect memory, behavior and health — and many
researchers are betting that they do — that may bode well for today’s middle-age people, Dr.
Levy says. They may not be quite so willing to declare themselves old when they reach their 60’s and beyond and they may be less likely to believe the stereotypes of old age.

Still, Dr. Levy and others say, it can be difficult to resist the pervasive stereotypes of aging. Many people may accept them without realizing it.

“Then they become a self-fulfilling prophecy,” Dr. Levy said.

But not for people like Dr. Butler or Mr. Bialokur, who managed to escape that trap. Others, too, say they have thrived simply by ignoring the stereotypes.

Anita Vazzano, who turned 75 on Aug. 9, says she just does not give old age much of a thought. A widow who lives alone, she still works, taking a bus each day from her home in Bensonhurst, Brooklyn, to her office in Manhattan. She knows many people become weak and frail when they grow old, but that is not her, she says. “It has to happen someday, but that day is so far off,” Mrs. Vazzano says.

She knows the stereotypes. She has seen the offensive greeting cards. And she hates them.

“If I was old,” she says, then catches herself and laughs. In her view, she adds, old age, “is not going to happen for a long time.”