

Aerobics pioneer Dr. Kenneth Cooper believes in practicing what he preaches—for himself, at right, and for Donna Murphy, whose interview with the OU alumnus is followed by her patient's eye view of the Cooper Clinic on Page 6.

AGE FAST AGE SLOW

**Dr. Kenneth Cooper can't guarantee you
a longer life through aerobics,
but he can promise you a better one.**

By DONNA MURPHY

Kenneth Hardy Cooper started the world running.

From his Aerobics Center in Dallas, he has promoted the benefits of exercise and preventive medicine into a national obsession which is spreading throughout the world — largely through his books which are translated into 35 languages. The people in Brazil don't ask if you've jogged today, they ask "Have you done your Cooper today?"

In a way, Cooper's standing as the major international spokesman for physical fitness is a blending of his early ambition to be a medical missionary and his youthful passion for running.

Cooper excelled in track at Putnam City High School — even though the school didn't have a coach for the sport. By the time he was a senior, he had attracted the attention of the University of Oklahoma track coach John Jacobs and OU sports publicist and lifetime runner Harold Keith.

Keith, working with Jacobs, devised a training schedule and coached Cooper by mail during his senior year in high school. He responded by winning the state championship in the

mile, finishing in 4:31.9 at a time when the four-minute mile was still an unbreached barrier.

"One of the major reasons I came to OU was because of the interest in me expressed by Harold Keith," Cooper recalls.

Cooper completed three years of pre-medical instruction at OU on a track scholarship, was admitted to OU's College of Medicine in Oklahoma City, completed his degree in 1956 and entered the Army. While stationed at Ft. Sill, he met and married Millie Clark, a 1957 OU sociology graduate from Noble, Oklahoma, who was working in the Special Services in Lawton.

"I had gone to college, finished medical school, gotten married and was going the way of a standard American," he notes. "I was 30 pounds heavier than I am now and had been totally inactive for eight years after having been an athlete in high school and college. By the time I was 30 years of age, I was a wreck. I had hypertension, no energy, no pep. All I did was go home at night, eat supper and lie down on the sofa and go to sleep while watching television."

While on a rare water skiing excursion

one day, he had a frightening experience. Looking back, he believes it may have been a cardiac arrhythmia (an irregularity of the heartbeat) — similar to what may have caused the death of running proponent Jim Fixx.

"It shocked me. I realized that something was lacking."

Thus began his return to a physically active life.

"I experienced for myself what I'm now encouraging my patients to experience," he explains.

In 1960, Cooper had the opportunity to transfer from the Army into the Air Force to start a training program at the School of Aerospace Medicine in San Antonio, Texas. Gradually he became identified as the Air Force expert in physical conditioning, assigned to develop the programs to be followed by astronauts prior to blastoff.

Using an aerobic point system which had been the basis of several of his previous publications, Cooper came up with a conditioning program for the entire Air Force which eventually replaced the Royal Canadian 5BX Air Force exercise plan which had been used formerly.

Cooper loves and respects the mili-

tary, yet in 1970 — just a few years from retiring with full benefits — he resigned from the service, with a pregnant wife, no insurance, no job, no place to work, no home.

“That takes guts,” he quips, “or stupidity.”

“I left the military because I was being controlled, and I couldn’t continue in this field,” he says, explaining that his rank soon would have required him to take command of a military hospital. Also, the military wasn’t ready to accept his ideas and suggestions on preventive medicine.

“I was frustrated in the military,” he says. “I could see how little effort was being spent in the area of fitness. As a physician practicing medicine in the military, I was seeing 60, 70, 80 people a day on sick call, and I saw so much lethargy and apathy and indifference along with obesity and high blood pressure and cigarette smoking and alcohol problems. I thought, ‘My gosh, we’re a dying population not because of some infectious disease we can’t control, but because of what we’re doing to ourselves.’”

This frustration, his own personal experiences and the research he had been doing prompted him to write his first book in 1968 with Millie as his manuscript typist. *Aerobics*, which he released simultaneously in paperback to make it as widely available as possible, stayed on the best seller list for a year.

Cooper arrived in Dallas two years later with Millie, a dream, some royalties from his books and little else, but he was determined to create a center that focused on preventive medicine.

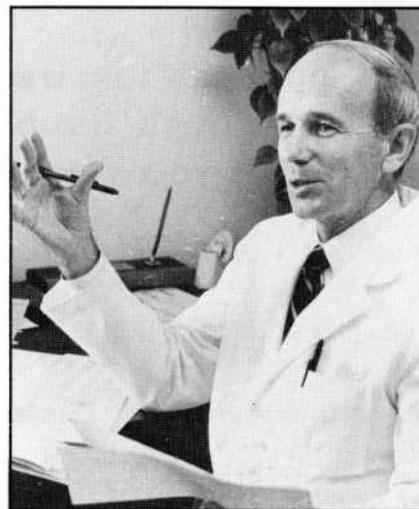
He was met with considerable skepticism and some outright hostility.

“Even the supporting physicians — and there weren’t too many of them — said I couldn’t limit my practice to healthy patients and even make ends meet. But what my critics — and even I — failed to realize is that if people recognize that they have a need, and you provide a service, and they get the results they want, they will beat your door down trying to come in.”

The Aerobics Center in north Dallas — which has grown to more than 200 employees since Cooper opened it with two employees less than 15 years ago — is a 30-acre complex of swimming pools, tennis courts, an activity center,

a research center where eight physicians and technicians conduct examinations and practice preventive medicine, and a luxurious guest lodge. The activity center houses basketball courts, an indoor jogging track, aerobic dance and calisthenic classes and weight rooms.

The activity center has a membership of 3,200 and a 26-month waiting list. The renewal rate is 83 percent each year. Almost half the members exercise every day, between 800 and 1,300 of them working out at the center daily.



“We’re not jogging because we think it will prolong our lives or protect us from heart attack. We jog because it makes us feel good.”

“We’re helping people help themselves,” Cooper explains. “Age fast, age slow, it’s up to you.”

With the success of his books and his Aerobics Center, Cooper has become a sort of guru of physical fitness. With the death this past summer of Fixx — who died of a heart attack while running — Cooper has become even more of a media personality.

After Fixx’s death, Cooper spent hours on the telephone with reporters answering questions about the dangers of jogging. He was quoted in a *Time* magazine article on Fixx; a CBS news crew went to Dallas to tape an

interview; *USA Today* newspaper prepared a five-part story on Cooper; and he has been scheduled to appear November 15 on the hour news program “20/20.”

“People keep asking what’s going to happen to jogging with the death of Fixx,” Cooper explains. “Not one thing!” is his reply concerning the people who already jog.

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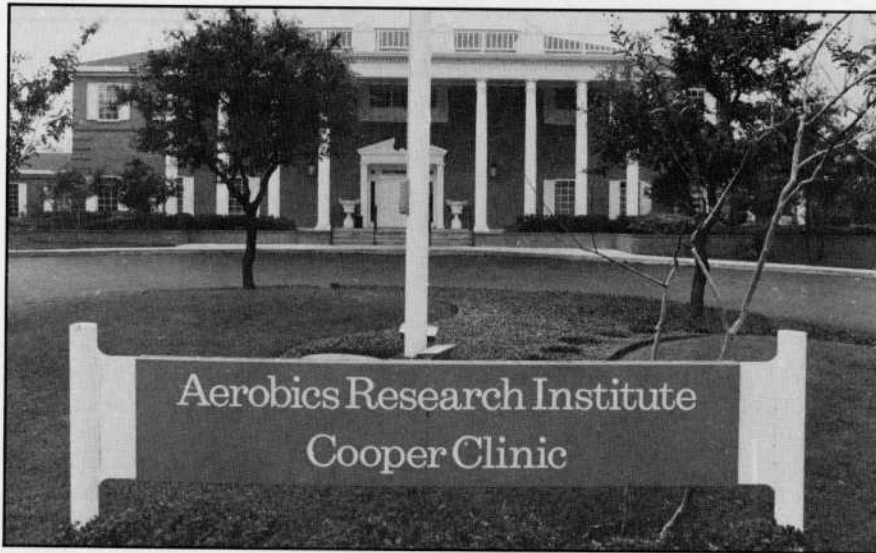
“A patient recently said to me: ‘Doc, when I exercise I feel good; when I don’t exercise, I feel bad.’ Boy, I know what that person means. I get so depressed when I have to lay off exercise.”

Psychological studies back up his “good feelings” theory. Studies reveal that people who exercise regularly get less depressed and have less hypochondria, an improved self-image and a much more positive attitude toward life.

“Exercise makes me feel better; it gives me enthusiasm, the zest for life. It helps me accomplish my very heavy workloads. Whether it prolongs my life or protects me from having a heart attack, I don’t know. I can’t yet document that in a highly significant fashion, but I’m sure it helps tremendously. But I exercise because of the quality of life I enjoy!”

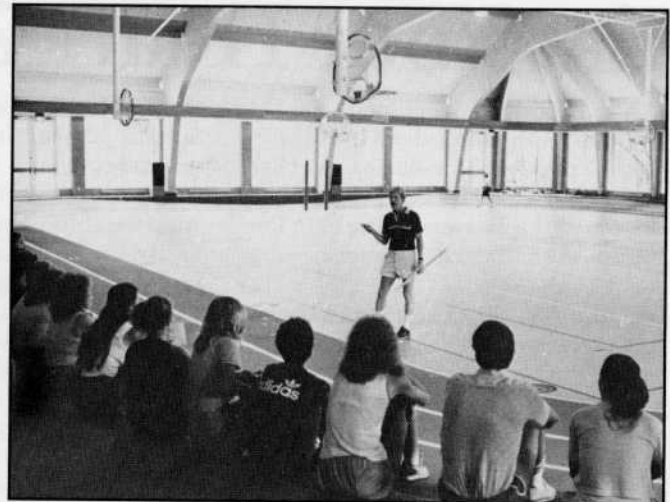
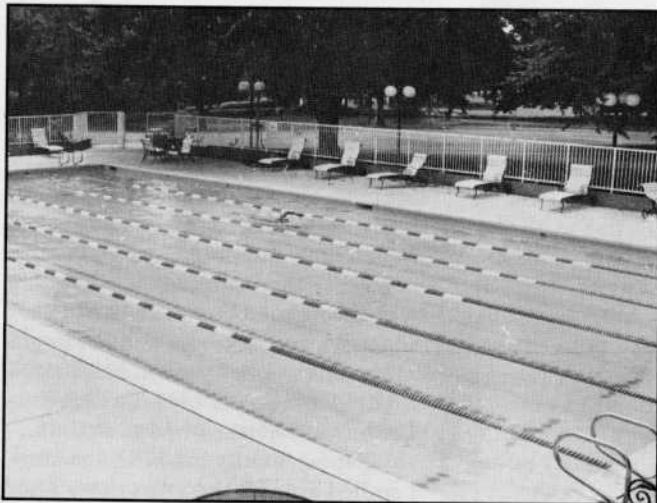
Measuring objectively the preventive aspects of regular aerobic exercise is very much a part of Cooper’s efforts. Data is collected from all the physical examinations conducted at his clinic and from the activity center members who use the center’s computer terminals to record daily information on their workouts. The data is forming the foundation for a major long range study involving some 20,000 people who are being tracked from the time they first come into contact with the Cooper Clinic until their deaths.

Cooper’s efforts, though centered in Dallas, don’t end there. Oklahoma is where his Institute for Aerobics Research helped kick off a new Youth Fitness Testing Program, dubbed FitnessGram, which began two years ago in Tulsa public schools and was expanded last year to include all of the Sooner state. This past September it spread nationwide, with funding from the



Ken and Millie, right, jog along the paths on the grounds of the Aerobics Center. In addition to the research center, facil-

ities accommodate tennis, swimming, basketball, aerobic dance, calisthenics, weights and a luxurious guest lodge.



Campbell Soup Company and in cooperation with the President's Council on Physical Fitness and Sports.

"When you die of a heart attack, it's been developing for about 20 years," Cooper says, citing studies that revealed signs of coronary heart disease already existed in many young soldiers killed in action. "The process starts early, so if we are to have any long-term effect in reducing the epidemic of heart disease, it has to start in the teen-age years."

Cooper also recently accepted a two-year appointment to the Army Science Board, where he will report directly to Army Chief of Staff Gen. John Wickham and the Secretary of the Army John Marsh. The board will be attempting to upgrade the quality of the

military's physical exams and its physical conditioning standards, and to establish wellness centers in conjunction with military hospitals. The first may be located at Ft. Sill.

At OU's Health Sciences Center, plans are under way to build a \$12 million multipurpose facility that will incorporate medical and recreational areas much like the Aerobics Center. Cooper, who last spring received OU's highest honor, the Distinguished Service Citation, is assisting in planning the facility and has agreed to raise \$1 million toward the funding.

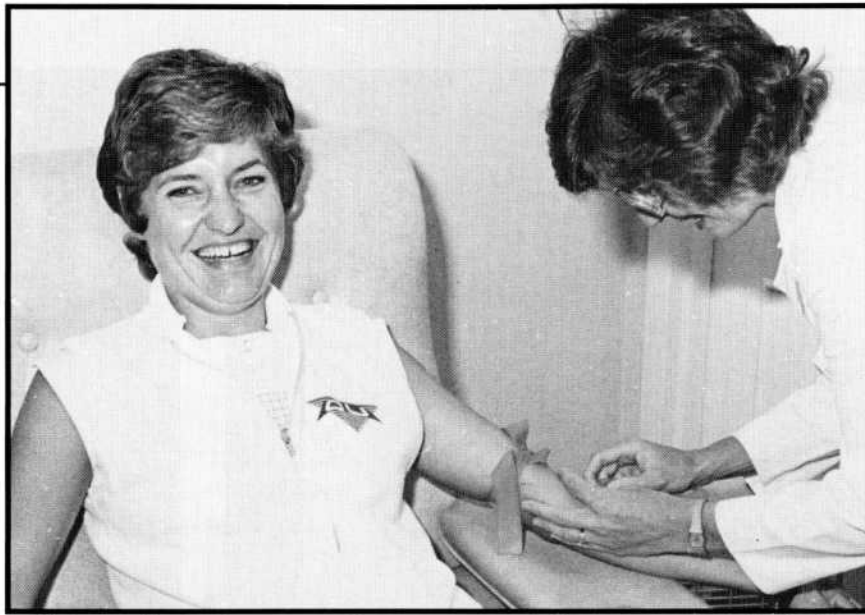
Furthermore, Cooper has worked closely with the Japanese developers of a \$60 million aerobic center, which will open next April with Ken and Millie as guests of honor.

"The world has become our home," Cooper notes. "Millie and I have visited 46 countries, and already we have five overseas trips planned for the coming year."

It's not so much the worldwide success of aerobics but his personal success that seems to surprise Cooper. "I don't know what the future holds. The plans I had were so miniscule to what's happened in the last few years."

Those early plans may have been modest, but they were based on a solid premise. "The underlying principle of the Aerobics Center," he explains, "is that it is a whole lot cheaper and more effective to maintain good health than to try to regain it once it's lost."

A visit to the Cooper Clinic continues on Page 6.



With a smile for the camera, Donna sets out to discover just how fit she is.

Eat Your Heart Out, Jane Fonda!

Apprehensive. Me?

There was nothing about the Cooper Clinic physical fitness exam that should have made me nervous. After all, I'm still relatively young (33); I'm hardly ever ill; and I exercise regularly.

Still, I was nervous. If only I hadn't told everyone I was going — my family, my co-workers, the gang I jog with everyday at noon, and, oh yes, any stranger I happened upon if I could work it into the "hello."

Now I had a reputation to establish!

So, slightly daunted, I headed for Dallas, accompanied by Dave Smeal, director of OU's Office of Electronic Media and Photo Services, who would document on film the thoroughness of the examination and, I feared, attest to my performance.

Before we left on that 100-plus-degree Monday, I thought I had better get in one more workout. I joined my running group at noon and did a fast three miles so I could shower, dress and meet Smeal by 1 p.m. Only later did I reread my instructions and discover that I wasn't supposed to exercise for 24 hours prior to the Cooper physical.

Needless to say, I didn't have time for lunch, but at a 2 p.m. stop in Ardmore en route to Dallas, I grabbed a one-ounce bag of fruit and nuts and a diet soft drink, all the while looking forward to a big dinner at the Cooper

Clinic's Center Table restaurant before my 12-hour fast (required for the exam) began at 7 that evening.

Experiencing only a little trouble with the thickening Dallas traffic, we easily found Kenneth Cooper's Aerobics Center, a lush, green oasis in north Dallas. Joggers and walkers had the right-of-way as we slowly entered the center grounds, with its jogging trails that wind around 30 acres of duck-adorned ponds, two swimming pools, tennis courts, an activity center, guest lodge and research center.

We found our rooms in the guest lodge and then checked in with Sue McCullough, who works in the public relations office, and Cooper's secretary Harriet Guthrie, to confirm a 6 p.m. appointment to photograph Ken and Millie Cooper together. Millie had agreed to drive over for the photograph that evening because she was leaving town at 6 a.m. the next day for a speaking engagement. Cooper would step out of a staff meeting for the photograph.

When we finalized the arrangements, I checked my watch — not enough time to eat dinner before the photo session. I'd have to wait a little longer.

Promptly at 6, we met Millie — an energetic, talkative disciple of physical fitness. Cooper — friendly, cooperative and unhurried although his staff awaited his return — joined us for the

photograph. Afterward, Millie, seemingly not bothered by the still-hot Texas sun, stood outside with us, talking about aerobics, how she and her husband met, the early days when their clinic was less than successful, fad exercise programs, working her way through OU as a clerk at Clark Cleaners, her children, and her beginnings as a public speaker. Fascinated, I jotted notes all over an Aerobics Center Newsletter I had picked up.

When we finally bid Millie goodbye, I smiled over all the great notes I had taken and then checked my watch — 7 p.m.! Time to begin my fast, but I *had* to have something to eat. So while Dave purchased a full meal, I devoured a carton of yogurt and a glass of water.

My physical, along with those of dozens of other Aerobics Center patients, began at 7 a.m. the next morning. I managed a bright smile for the camera as one of the center's medical staff — which includes eight full-time physicians — drew blood that would be used for 24 different tests.

Following shortly were three examinations of my eyes—vision screening, a test for glaucoma and an analysis of my peripheral vision.

Another test measured my pulmonary (lung) function by having me pinch my nose, inhale and then force all the air from my lungs into a device that looked a lot like a vacuum cleaner hose. This helps reveal if you have em-

physema or obstructions in your lungs.

They also tested my ears. I have the hearing of a teen-ager. Not bad, eh?

Then a dentist examined my teeth and vocal cords.

A chest X-ray was taken to check the size of my heart, lungs and other organs.

Then it was time to see how fat I was. I knew it was coming. I had read all the literature they had mailed to me on the physical and knew that the percent of fat to muscle is important not only to health, but also to appearance.

To determine the percentage of body fat, the technician — mine was Barb Berle, a personable woman who was only slightly taken back when I showed up with my shadow, Smeal, who was trying to capture every detail of the exam on film — first pinched my skin in several key locations with calipers, which resemble ice tongs, to measure the thickness of my fat. Next, I climbed into a deep tank of water, sat on a swing-like chair with weights across my lap, exhaled all the air from my lungs and ducked my entire body under the water. Attached to the swing was a scale which was suspended from the ceiling. (I have the uncomfortable feeling that they must weigh the hind-quarters of beef much the same way.)

Four times I was submerged, while Barb dutifully marked down my underwater weight.

Getting wet would have been refreshing had I not spent a considerable time that morning fixing my hair and putting on makeup in an effort to be more photogenic for this “physical in photos” story. I had hoped this test would be last. It’s hard enough facing a camera while sweating, without also having wet, straight hair and no makeup.

Another series of tests measured strength and flexibility. They measured the strength of my arms and legs by having me lift weights on various pieces of Nautilus equipment. My abdominal strength was determined by the number of situps I could do in one minute. Leg flexibility was measured by having me sit with my legs straight out in front of me, knees flat on the floor, and reach my fingers out as far past my toes as possible. Results ranged from very good to average and



Under the guidance of technician Barb Berle, Donna forces the air from her lungs to measure pulmonary function.

Photos by Dave Smeal



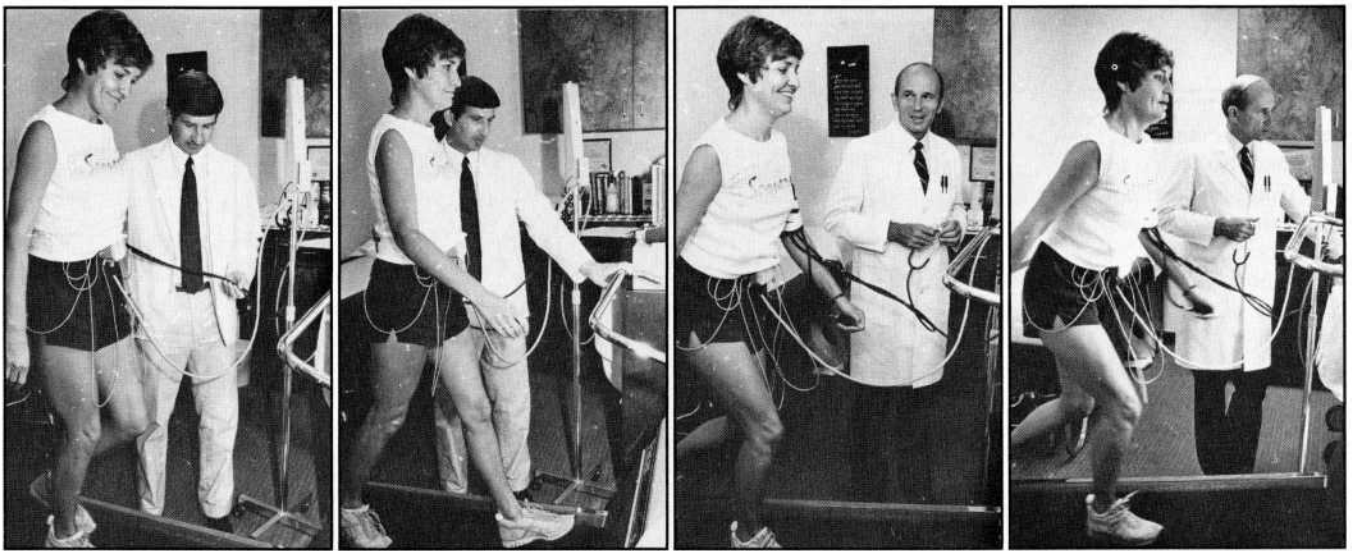
Barb uses calipers to measure the thickness of Donna's body fat. Next Donna will climb into the tank of water at right to determine her underwater weight.

a variety of exercises were recommended to bring me up to excellent.

Food — which remained on my mind throughout the day — was the focus of another aspect of my physical. I had brought with me a diary of the food I had eaten over a three-day period. One of the clinic's dietitians keyed the food record into a computer to provide me with an analysis of my diet — the amount of vitamins, minerals, protein, carbohydrate and fat I consume. The analysis found me to be one pound under my “target” weight (that's what

starvation can do for you) and recommended increased intake of calories, carbohydrates, fiber, calcium, potassium, zinc, iron, pyridoxine (B6), pantothenic acid, folic acid and water. The dietitian advised me on how to reach and maintain ideal weight, and the types of food to eat for total well-being.

Then came what I had been waiting for with a mixture of excitement and anxiety — the treadmill. Barb came in and attached a dozen or so electrodes to my chest and back, wished



From left, Harold Burkhalter places Donna on the treadmill; she's still going strong at 14 minutes; then at 20 minutes, she begins to feel the strain; at 22 minutes, with Cooper supervising, she's finished — but superior for her age group.

With an encouraging report from her day at the Cooper Clinic, Donna receives her certificate from OU alumnus Cooper and looks forward to her long-delayed dinner.



and other tests (the thoroughness of which were mind-boggling) would be mailed to me a few days later.

He then conducted yet another physical examination, checking my reflexes, lymph nodes, thyroid gland, eyes (which he calls the "body's windows" because they reveal so much about your health), and abdominal area, including the liver and spleen. He also listened to the lungs and heart.

As if the physical examinations were not enough, a lengthy psychological examination is given to all patients. My answers to a wide-ranging series of questions were tabulated by computer and provided a general description of my personality based on 16 personality traits — whether I tend to be reserved or outgoing, calm or easily upset, submissive or dominant, trusting or suspicious, disciplined or undisciplined. (As you can surely tell, I am a happy, friendly, perfectly normal person.)

The psychological profile is useful since some health problems, including the likelihood of heart attack, can be affected by a person's personality and ability to handle stress.

Finally, I was finished. It had been an interesting and encouraging day — I was pretty fit and pretty lean. But more importantly, now I could eat. ☺

me well, and left me in the hands of Harold Burkhalter, one of Cooper's assistants. He took my resting heart rate — 50 beats per minute — and six readings of my blood pressure (three on each arm while standing, sitting and lying down).

Then, and only then, did he place me on the treadmill.

Walking on a treadmill is like walking on a spinning log in water. At least, it was for me. The treadmill controls the speed, you don't. You can't look to the side or you lose your balance. You take steady, quick strides, looking straight ahead. You start out walking on a flat surface, but with the passage of each minute, the incline of the treadmill is raised one degree, slowly becoming steeper until it's like climbing a hill.

At about 14 minutes into the test, Burkhalter said I'd soon be in the excellent category for my age range if I could stick it out for a few more minutes. I felt pretty good at that point and was surprised at how quickly the time was passing. A short time later,

however, my calves began letting me know that they didn't like walking uphill.

At 20 minutes, Dr. Cooper came in to supervise my finish — which came two minutes later when legs and a slightly nauseous stomach convinced my mind it was time to stop. Twenty-two minutes, Cooper noted, placed me well into the superior range for my age group — yes, SUPERIOR!

After congratulating me heartily, he said Millie would be pleased that I had come close but had not beaten her record of more than 22½ minutes. Then, to my chagrin, he pointed to a wall chart of record treadmill times for different age categories. His finger stopped at the bottom of the list, and he said:

"You just tied the record held by women 70 and over!" Ugh!

My physical wasn't over yet, however. Next, I met privately with Dr. Cooper, who reviewed the preliminary results of my tests. Since I was returning to Norman that day, the results of my blood tests, nutritional analysis

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