THE COOPER INSTITUTE
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UPDATE

New Lecture Series Draws Local Support

The Cooper Institute kicked off its "Preventive Medicine & Wellness Lecture Series" in April, exposing members of the Dallas community to its multi-faceted work. The inaugural event was held at the home of Steven and Gail Reinemund. Mr. Reinemund serves as chairman of the board and CEO of PepsiCo, the event sponsor; he also is a member of the Institute's Board of Trustees.

The second lecture, featuring best-selling author Miriam Nelson, Ph.D., was held in May at the home of Dan and Gail Cook. Each event drew approximately 100 guests.

"We're creating friends who had no idea about our research center," said Kenneth H. Cooper, M.D., M.P.H., who spoke on "21st Century Medicine" at the first event. "The most important thing about the lecture series is exposing the Institute to key people and letting them know it is a non-profit organization supported by contributions and gifts, as well as grants."

Upcoming lectures include the following:

- **7 p.m., Tuesday, September 28:** Russell R. Pate, Ph.D., "How to Get Sedentary Youth to Be Physically Active." The event will be hosted by Norman and Toni Brinker in Dallas.
- **7 p.m., Tuesday, November 9:** Dean Ornish, M.D., "Don't Let Your Lifestyle Kill You." The event will be hosted by Kenny and Lisa Troutt in Dallas.

Because the lecture series has been such a success, The Cooper Institute plans to offer more dates in 2005. Several levels of participation are available, ranging from individual subscribers to corporate sponsorships. Individual reservations are available for $125 per person.

For details or to make a reservation, contact Barb McGowan at (972) 341-3280.

How Much Is Enough?

Steven Blair, P.E.D., president and CEO of The Cooper Institute, was one of four researchers invited to participate in "The Weight Debate" symposium, held this spring in Washington, D.C. His presentation spotlighted a paper he co-authored, "The Evolution of Physical Activity Recommendations: How Much Is Enough?" It was published in the May issue of the *American Journal of Clinical Nutrition*.

So…what's the answer to this burning question? Clearly, there is no pat answer.

Over the years, various exercise recommendations have been released by reputable organizations, creating confusion for many people. Blair and his colleagues acknowledge that part of this haziness results from two different schools of thought:

- Exercise training research in the 1970s focused on the frequency, intensity and duration (or dose) of activity recommended for **performance-related fitness**.
- Epidemiological research, with overall public health as its goal, focused on **health-related activity recommendations**.

In 1990, the American College of Sports Medicine (ACSM), a leader in providing specific exercise recommendations, began to make a shift from a performance-related fitness paradigm to one that includes activity recommendations for both performance and health-related outcomes.

Two years later, the American Heart Association named physical inactivity as the fourth major risk factor for heart disease. The organization encouraged moderate activity, stating that high levels of exercise weren't necessary for health-related benefits.

By 1995, the Centers for Disease Control (CDC) and ACSM published a report advocating the accumulation of at least 30 minutes of moderate-intensity physical activity each day. Both organizations surmised that this dose of physical activity could be achieved by the typical person and could have a profound impact on reducing the risk for disease and premature death. Their report also stated that people meeting the basic exercise recommendations could gain additional health benefits by doing more exercise.

Similar reports from other key organizations soon followed. Their aim was to inspire 40 to 50 million U.S. adults who are sedentary and at risk for chronic disease to get moving.

In September 2002, the Institute of Medicine (IOM) sparked a debate when it released new health recommendations calling for 60 minutes of activity per day. Looking more closely at obesity than at inactivity, the organization asserted that 30 minutes of moderate-intensity activity per day was "insufficient to maintain body weight in adults" in the healthy weight range.

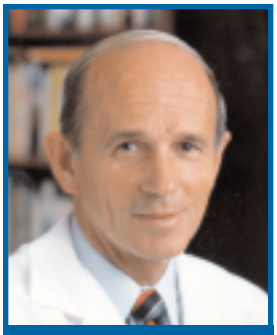
So…how much *is* enough? In an attempt to harmonize the recommendations from the CDC/ACSM and the IOM, Blair states that 30 minutes per day of moderate-intensity activity (which can be broken into three, 10-minute segments) provides substantial health benefits for people of all shapes and sizes. Those who meet these recommendations may want to build up to 60 minutes of activity per day for additional health benefits and to prevent possible weight gain.

Blair suggests that in addition to aerobic exercise, people should consider adding activities such as resistance training and flexibility exercises, at least twice a week. These additional exercises will help increase lean body mass, improve muscular strength and endurance, and preserve function—all of which promote quality of life.

Letter From the Chairman of the Board

By Kenneth H. Cooper, M.D., M.P.H.

A Note of Gratitude



Kenneth H. Cooper

For the past 24 years, I have had the privilege of working with Dr. Steven Blair. He has gained a national and international reputation in the field of preventive medicine, and it is an honor to have him serve as president and CEO of The Cooper Institute.

When I met Steve at a scientific meeting many years ago, I was impressed with his intellect, with his presentation and with his discipline. I was even more impressed when I learned he was a regular exerciser and ran marathons.

Steve initially worked with us as a consultant. Then in 1984, he joined our staff as director of epidemiology. Though he could have developed an impressive career with a prestigious university or large government agency, I believe Steve saw that a smaller organization such as The Cooper Institute has its advantages. For example, our researchers don't have to go through all sorts of committees to get something approved. They have a certain level of independence that doesn't exist in many other environments.

Steve Blair has been a huge supporter of the Aerobics Center Longitudinal Study (ACLS), which I established in 1970 when I founded the Institute. Now the largest database of its kind, the ACLS is based on data from more than 80,000 patients who have come to the Cooper Clinic for medical evaluations since 1970. The ACLS database contains more information on fitness and body fat percent and fat distribution than any other study, and has opened the doors for many research projects.

When Steve came on the scene, I told him that we needed solid, scientific research published in respectable peer-reviewed journals before we would ever get adequate funding or support for The Cooper Institute to continue. His expertise has led us to receive numerous grants from the National Institutes of Health (NIH) over the years. NIH grants are highly competitive, and our success rate is a testament to the high quality research being done at the Institute. The ACLS has been supported by federal grants for 20 years, a remarkable achievement for our scientists.

Steve does an excellent job writing grants or supervising the submission of them, and his scientific colleagues around the world respect him. He has been honored with awards from many institutions.

With Steve's travels and speaking commitments abroad, the Institute benefits from his international profile. You can hardly pick up a newspaper and read an article on fitness without finding the Institute mentioned. Our researchers and educators are recognized leaders in the field; they are doing an excellent job getting the word out.

Though Steve's research covers many areas, his crowning achievement to date, in my opinion, is his work in the area of fitness and obesity. His research has shown that overweight people who exercise have half the death rate of normal-weight people who are inactive. In simple terms, it is better to be fat and fit than skinny and sedentary. Mark my words: This is going to be the next major move in preventive medicine and wellness.

Obesity has been rated much more of a problem than it should be. It is a manifestation of poor diet and a lack of activity. This is what Steve Blair has said from day one, and I think research will continue to show that he is right.

I have a great respect for the work being conducted at the Institute. Because of Steve's reputation, he has demonstrated great ability to assemble outstanding teams led by Drs. Dave Buller, Tim Church and Susan Sterling. The Institute attracts distinguished researchers and educators who share the passion and commitment to preventive health and wellness not only for individuals, but for all populations. I am very proud of our extraordinary staff who, collectively, are making such a difference in health-based research and education.

Since Steve began serving as president and CEO in 2002, not only has he created an excellent working environment for staff, but he has shown wisdom with financial management. It was an unexpected surprise to have Steve willing to go out and, side-by-side, help me raise funds for the Institute. The NIH funding we receive supports basic research projects; but creating new ideas, new concepts and paying people to essentially work in a think tank has to be generated by contributions and gifts.

I encourage everyone to get behind the work of Steve Blair and The Cooper Institute. To participate in the Preventive Medicine and Wellness Lecture Series (see page 1), contact Barb McGowan at (972) 341-3280. You'll be amazed at the quantity of research that takes place at The Cooper Institute each year, and I believe you'll have a new appreciation for our scientists and educators, each of whom is committed to helping improve our health and quality of life.

Millions Face Metabolic Syndrome

The medical community is beginning to pay closer attention to a condition called "metabolic syndrome," which involves a clustering of several risk factors for cardiovascular disease (CVD). Based on recent data from the National Health and Nutrition Examination Survey, an estimated 47 million Americans have metabolic syndrome—and many aren't aware of it.

People with three or more of the five following components are considered to have this condition, which significantly increases the risk of developing CVD and diabetes, particularly in people who are unfit and sedentary.

	MALES	FEMALES
HDL cholesterol level	**<40 mg/dl**	**<50 mg/dl**
Fasting Blood Triglycerides	**≥150 mg/dl**	**≥150 mg/dl**
Blood Pressure	**≥130/85 mmHg**	**≥130/85 mmHg**
Fasting Blood Glucose	**≥110 mg/dl**	**≥110 mg/dl**
Waist Circumference	**>40 inches**	**>35 inches**

mg/dl = milligrams per deciliter mmHg = millimeters of mercury

In a recent issue of the scientific journal *Obesity Research*, Cooper Institute Curriculum Director Stephen Farrell, Ph.D., published a paper examining the prevalence of metabolic syndrome in women of varying physical or cardiovascular fitness levels and ages. Farrell looked at 7,104 Cooper Clinic female patients with an average age of 45 years who came to the Clinic between 1979 and 2000. These women were divided into five fitness categories based on their age and maximal treadmill exercise performance. Blood tests, as well as measures of abdominal girth and blood pressure, were used to identify women with metabolic syndrome.

When examining the women from the lowest to the highest of five fitness categories, metabolic syndrome was present in 19%, 6.7%, 6%, 3.6% and 2.3% of the women, respectively. Age was also a strong predictor of the presence of metabolic syndrome; only 2.4% of 20- to 29-year-old women were found to have the condition, compared to more than 15% of women ages 60 and older.

This particular study showed significantly lower levels of metabolic syndrome are observed in women with moderate and high fitness when compared to women in the lowest fitness category.

Metabolic syndrome is a complex condition involving simultaneous elevations in cardiovascular and diabetes risk factors. Interestingly, low levels of physical activity and fitness are also associated with increases in these risk factors, and therefore, may be a primary reason for developing metabolic syndrome.

"This in turn increases the risk of developing cardiovascular disease, which accounts for more than 500,000 deaths in U.S. women each year," Farrell said.

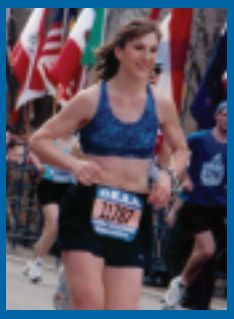
The results of this study should encourage physicians and health-care professionals to spend more time counseling their patients to become more physically active and fit. "Exercise is probably the most powerful tool, other than medication, for dealing with metabolic syndrome," Farrell said. "It lowers blood pressure, raises HDL cholesterol, lowers blood triglycerides levels, and lowers blood glucose and insulin levels. Just 30 minutes a day—and it can be broken into three-10 minute sessions—provides life-changing health benefits."

Farrell's research documents that fitness is associated with better cardiovascular health in women as previously shown among men. "Low fitness is a strong predictor of women who have metabolic syndrome," Farrell said.

In Brief...

- **The Cooper Institute moved its South Dallas satellite office to a larger facility in May.** Now located at 4573 S. Westmoreland, the 4,445-square-foot Oak Cliff Outreach Center includes an indoor walking track, exercise room and conference room. The purpose of the center is to facilitate minority recruitment for the "DREW" study (Dose Response to Exercise in Postmenopausal Women Ages 45 to 75) and the LIFE Study (Lifestyle Intervention & Independence for Elders, Men & Women Ages 70-85).

Cooper Instructor Runs Boston Marathon



Rhonda Carter, a teaching associate at The Cooper Institute, competed in the Boston Marathon on April 19—just nine months after giving birth to her son, Haden.

Carter has run a total of six marathons and qualified for Boston two years ago at the Motorola Marathon in Austin, Texas, with a time of 3:35. Her time in the Boston Marathon was 4:08. "The temperature was 86 degrees with 40% humidity and full sunlight. It wasn't my best, but I'm not sure too many runners were close to their best times," she said.

Carter began running again six weeks after she gave birth. She gradually increased her mileage and ran a couple of half-marathons along the way. "I found it pretty easy to get back to my marathon pace," she said. "I did a little bit of hill training but didn't do any weight training or interval training like I usually do."

Because she eats healthfully on a regular basis, Carter didn't follow a special diet while training. However, shortly before the marathon she increased her carbohydrate intake. During the run itself, she hydrated both with water and sports drinks.

Her advice to people thinking about running a marathon is to do hill work, weight training and interval training, along with long slow-distance runs. In addition, she suggests taking rest days to allow your body to recover from the workouts and help avoid overtraining.

During the run, she recommends balancing water with a sports drink to maintain electrolyte balance and to help delay glycogen depletion.

Carter hopes to participate in the Boston Marathon next year. "It's the ultimate marathon experience, and I know I can run it better than I did this year."

Volunteerism Offers Mutual Benefits and Rewards

The Cooper Institute is looking for people who have something very precious and valuable to give: time.

Susan Campbell, vice president for Strategic Resources at the Institute, said she and her colleagues are currently identifying "an abundant selection of volunteer opportunities" throughout the organization.

"A potential volunteer will be able to review volunteer job descriptions and speak with potential supervisors to ascertain if a match exists," she said. Duties, required skills and time commitments involved with each position are available for those interested in volunteering.

Clara Smiley begins a new chapter in her life by volunteering at The Cooper Institute.

Clara Smiley, a Dallas resident who retired two years ago as a reference librarian for a management consulting firm, began volunteering at the Institute this spring. "I just wanted to be able to help out someone, somewhere," said Smiley.

A patient at the Cooper Clinic, Smiley said the Cooper campus and its employees have always impressed her, and she thought she would enjoy the working environment. "Your life gets to a point to where you do have time," she said. "I had no idea what I would be qualified to do or what I would like to do, but I wanted to see if somehow I could be of help."

After meeting with an Institute staff member, Smiley was set up to handle telephone screening interviews for the "DREW" study (Dose Response to Exercise in Postmenopausal Women Ages 45 to 75). Her position helps the Institute's research staff determine who is eligible for the study.

She goes to the office once a week for about four hours, which enables her to travel with her husband and participate in other outside activities.

Smiley said the amount of research being conducted at The Cooper Institute has taken her by surprise. "I don't think people clearly understand how much is going on and the professional manner in which it is done," she said.

In addition to conducting interviews with new study participants, volunteers help the Institute's researchers and educators by:

- inputting data for scientists' review
- assisting in the development of new curricula
- helping administrators in the day-to-day business of running a non-profit organization, and
- participating in planning discussions.

"This level of involvement in our work helps to increase support for the Institute's mission as volunteers share their rewarding experiences with family members and friends," Campbell noted.

From time to time, volunteerism leads to a great connection—or, for one Cooper Fitness Center member, an internship and part-time job.

Byron Scarborough's volunteerism has led to an internship and part-time job.

About a year ago, **Byron Scarborough** saw a sign posted in the men's locker room that asked, "Do you have time to volunteer?" The Cooper Institute was seeking help, and Scarborough, who had just completed his second master's degree in clinical counseling, agreed to give about four hours of his time each week.

The first day he walked into The Cooper Institute was déjà vu. As a boy, Scarborough had regularly attended Churchill Way Presbyterian Church, which today houses The Cooper Institute. "I grew up here," he said. "When I came here to volunteer, it was probably the first time I had been in this building since I was 13 years old."

Scarborough was assigned to the Institute's Center for Weight Management. Within time, Jody Wilkinson, M.D., M.S., who serves as director of the center, became aware of Scarborough's skills and asked him to help write curricula and talk with patients coming into the program.

Earlier this year, Scarborough was named a staff intern, which allows him to receive credit to apply to his counseling license. In addition, he now works part time at the Institute by serving on a task-force dealing with childhood obesity.

"I never planned to get a job here," said Scarborough, adding that his knowledge of health and wellness has increased since getting involved with the Institute.

Those who want to volunteer can contact the Institute's volunteer coordinator at (972) 341-3200 or email slamonte@cooperinst.org for more information.

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