

Health Benefits

Developing Healthy Lifestyle Options for Senior Adults

Eat less and exercise more — functions as the mantra for losing weight and staying healthy. The media inundates Americans with information on the perfect diet or exercise to help shed those unwanted pounds and to obtain a healthy body. For the aging population, this process can be challenging.

“There is a rise in overweight and obesity in the U.S. that has severe health implications,” said Dr. Melissa Benton, associate professor of nursing. “Women are especially at risk for weight gain as they age.”

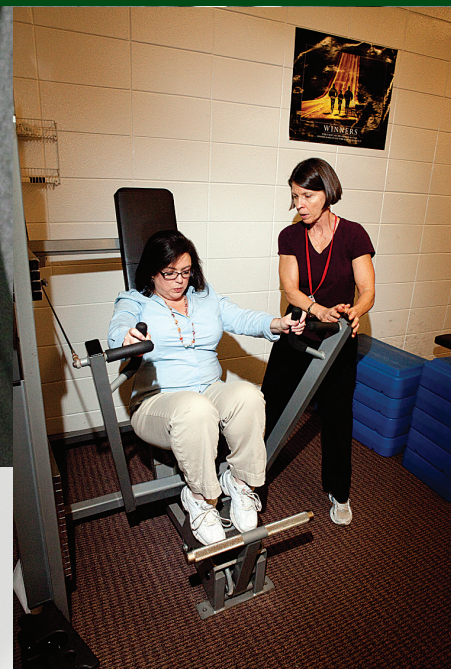
The standard cardiovascular exercises, such as walking, running or swimming, are often the first choice in weight loss; however, Benton suggests that weight training offers significant benefits, not typically seen with more traditional forms of exercise. “For people who cannot or prefer not to walk, run, jog or cycle outdoors, weight training in a climate-controlled environment offers a very attractive option.”

Benton also states that women are mostly unaware of these benefits and tend to avoid weight training as a form of exercise; and the issue of training frequency has not been addressed.

As a doctoral student at Arizona State University, Benton began a series of weight training studies. The first study looked at the effects of resistance training on elderly, chronically ill men and women. The second and third studies focused on nutrition and its timing around resistance training.

“My interest in exercise, and specifically weight (resistance) training, has to do with my clinical area nursing experience, which is gerontology or aging,” Benton said. “I became convinced that in order to most effectively intervene, I needed to catch people earlier on, probably in middle-age when they are first seeing the effects of aging, but are still motivated to do something about it.”

After completing her doctorate, Benton began looking for an institution that would foster her desire for research and teaching. “One of the things that interested me about Valdosta State is that it is an institution that values teaching — an understanding of the benefits of classroom instruction by



faculty members who are also involved in research. I enjoy translating research into practice and the classroom.”

Her board certification in gerontology, along with her previous experience in public health, has helped to shape Benton’s focus on health promotion and disease prevention rather than treatment.

“Aging involves changes in body composition (loss of muscle and gains in fat) that coincide with loss of strength and function,” Benton explains. “At the same time you see the development of chronic diseases — all of these conditions are preventable or reversible with appropriate exercise.”

A native of California, Benton says her research primarily focuses on aging, specifically the development of the most effective exercise prescription for women. She has found that most research addresses the needs of younger adults or older men; however, the missing link was preventative exercise for aging women.

“The healthcare profession predominately provides medications because people want them; they are perceived as an easy fix. I also believe we don’t really know enough about exercise to provide effective prescriptions either in addition to or in lieu of medicines. In other words, we tell people to exercise, but when they ask for specific instructions, we can’t really help them.”

After arriving at Valdosta State in 2006, Benton quickly began expanding her research in the area of resistance training.

“I wanted to find the answers and bring them back to other health care professionals, but as I studied, I realized that resistance training offers many more advantages than the traditional aerobic exercise we recommend, such as walking, jogging, biking, and etc.,” Benton said. “So I’ve increasingly focused on resistance training. At the same time, I fine-tuned my focus on middle-aged women as a population of interest. They’re understudied, while at the same time being at heightened risk.”



Dr. Melissa Benton, associate professor of nursing

Although the general rule suggests that adults should be active all or most days of the week, as people age, their ability to participate in vigorous endurance activities, such as running or jogging, becomes limited. Benton's research indicates that resistance (weight) training provides a viable alternative to endurance exercise for older adults.

"Current recommendations for weight training are two or three days a week. However, we forget that this is a minimal rather than a maximal recommendation," Benton said. "As in the case with most activities, more is better, so presumably, the benefits of two to three days a week would accrue faster and more profoundly if frequency were increased to four to five days per week."

In a series of studies with Valdosta State kinesiology faculty members Drs. Green Waggener, Scot Raab, and Mark Kasper, the group first observed that women — at the average age of 45 — gained around two and a half pounds of muscle mass during an eight-week training period. In addition, they concluded that women could physically tolerate four consecutive days of heavy resistance weight training with no adverse reaction.

"We used a higher-level protocol used by experienced athletes that allows daily training. This allowed us to measure the effect of a four-day per week weight training in comparison to the standard three-day per week training," Benton said.

The lack of available research in this area is a motivating force in the study. "Our hypothesis, not surprisingly, is that

more frequent training will result in greater gains in lean mass," Benton said. "There is almost no research available that evaluates training frequency and body composition, especially in women, so our finds will fill a significant hole in the literature one way or the other."

The idea behind her research is to find ways to promote a healthy lifestyle in middle-aged women. These techniques include promoting heightened activity and incorporating resistance (weight) training into the daily exercise routine.

"When you stop growing, you start aging, so the pathologies we see in older people actually begin happening at a younger age — as early as the teenage years," Benton said. "The question is at what point when the scales tip down, do you really begin to see a downhill slide towards death and illness."

As a specialist in gerontology nursing, Benton believes it is important to catch health problems early enough when exercise and activity can and will make a difference. She says if middle-aged adults start thinking and caring about their health, then that will translate into healthier lifestyles.

Benton's hope is that eventually, exercise will be constantly prescribed to patients, much like medicine is now.

Benton's research is providing alternatives to traditional medicine, and her work has been published in numerous medical and exercise science journals, including *The Journal of Strength and Conditioning Research*, *American Journal of Physical Medicine and Rehabilitation* and *Progress in Exercise and Women's Health Research*. ■