

Active and independent—that is the kind of senior citizen we all would like to be.

We admire people who dance, travel and even climb mountains and run races into their 70s and 80s. We shudder at the thought of being frail and dependent on others to manage our lives.

While there is no way to guarantee an active, healthy old age, we can hedge our bets, says OU geriatrician Marie Bernard. She believes that preparation for old age should involve more than financial planning. Middle-aged people need to invest in their physical well-being along with their annuities.

Baby boomers with strong muscles, optimal weight and a healthy lifestyle are far more likely to achieve what Dr. Bernard calls “healthy aging” than their out-of-shape, overweight contemporaries.

She talks about muscles a lot.

“Starting about age 30, we experience a progressive decrease in our muscles,” explains Bernard, who chairs the Department of Geriatrics in the OU College of Medicine. “Unless we take steps to stop this loss, by the time we reach old age, we have significantly less muscle mass in our bodies.”

People with insufficient muscle mass are weak and therefore limited in their physical activity. The less they do, the weaker they become. Often inactive elders lose their appetite and fall into marginal eating patterns. They lose lung capacity. Their cardiovascular system becomes fragile. The simple tasks of everyday living become increasingly difficult. They are prone to falls and fractures.

Many elderly people are not strong enough to pick up even a 10-pound weight, Bernard notes. They lack the strength to clean house, garden or lift a sack of groceries.

“We can take steps to prevent this downward spiral into frail old age,” Bernard says.

She describes a study involving three groups of men between the ages of 65 and 74. One group of men was comprised of runners and swimmers. Another group was involved in weight

USE IT OR LOSE IT!

lifting. The third group did not exercise. “While the runners and swimmers were in much better shape than the men who did nothing at all, it was the weight lifters who preserved their strength best and were more equivalent to young men,” she says.

“Clearly, people involved in regular resistive exercise from middle age on have significantly enhanced their chances of enjoying an active, independent old age,” Bernard adds. “They will continue to have reserve muscle capacity as they move into their 70s and 80s and are stronger, healthier individuals.”

She admits that her message is not a popular one. “Many older people have looked forward to retirement as a time to relax and not a time to take up resistive weight training.”

Often, the most they are willing to do is take a walk every now and then, she acknowledges. “Walking can help maintain the cardiovascular system, but resistive exercise is needed to maintain muscle mass.”

Two of the major problems of aging—instability and immobility—could be prevented with exercise. In fact, Bernard says they are the most preventable of all the maladies she sees in her patients—except perhaps

The Message About Aging You May Not Want to Hear

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PHOTOS BY ROBERT TAYLOR

lung cancer in smokers.

“Many old people who come to my office in wheelchairs would be walking if they had looked after themselves better when they were younger,” she adds. “Just this morning, I saw a woman who was too overweight and weak to get onto the examining table. That’s sad.”

With the sedentary lifestyles most Americans lead throughout their adult life, resistive exercise does not come automatically in the course of their day. Resistive exercise must be done repetitively and on a regular basis. It involves an unending commitment to an activity that most people have intentionally avoided.

Bernard’s prescription for healthy aging includes engaging in, three or four days a week:

- 40 minutes of aerobic activity—such as walking, swimming or biking—to raise the heart rate.

- 15 or 20 minutes of repetitive resistive exercises that work muscles at 80 percent of their capacity.

Working out with a group or joining a health club provides added incentive but is not necessary. Take walks in the neighborhood or at the mall. Do resistive exercises in front of the television. Those who are sadly out of shape should start modestly and gradually increase the heaviness of the weights and the number of



OU geriatrician Marie Bernard believes that the downward spiral into frail old age can be prevented if middle-aged people invest in their physical well-being along with their annuities.

resistive exercise, older individuals often are afraid to extend themselves, Bernard says. Ideally, a person enters old age with aerobic and resistive exercise as a regular part of their lifestyle.

She believes that people who continue to exercise into old age actually prolong their years of good health and may even, in some cases, extend their life span. Bernard tells about an active 83-year-old man who became really angry when he had a stroke. He insisted that he had done all the right things and should not have suffered a stroke.

“If he hadn’t ‘done everything right,’ he might have had that stroke at a much ear-

lier age, and it might have been a more serious one,” she points out.

In addition to exercise, doing everything right also includes eating the equivalent of three well-balanced meals a day, weight control and not smoking. Eventually, however, most people do suffer an acute illness. When sedentary individuals with marginal nutrition and decreased muscle mass suffer a stroke, heart attack or hip fracture, they face lengthier hospital stays, experience more complications and have a higher likelihood of becoming more seriously ill and dying.

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repetitions. If you cannot commit to 40 minutes, take 20- or 30-minute walks. The worst thing you can do is nothing at all.

Bernard insists that resistance training can be as simple as lifting soup cans and pulling on elastic bands. “But you must extend yourself,” she cautions. “You can’t keep doing things that are continuously easy. You have to progressively increase the challenge, otherwise you are not increasing muscle strength.”

While research shows that even very elderly nursing home residents can increase muscle strength with simple

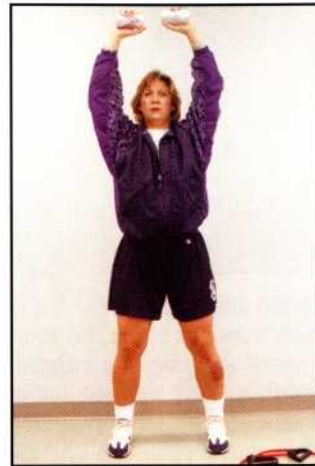
Prolonging health is as serious an issue with Bernard as prolonging life. Most people, however, tend to focus more on longevity than healthy aging. Those whose parents lived to a ripe old age expect to do likewise.

And maybe they will, Bernard acknowledges. Genetics is a strong determinate in longevity. The percentage to which exercise contributes to longevity probably is relatively small.

“But exercise is one thing we can easily include in our lives,” she says, “and it makes us feel and function better while we live out our life span.”

Easy At-Home Exercises

Jill Renick, OUHSC Fitness Center coordinator, demonstrates a simple workout requiring little or no equipment. She cautions that a 10-minute aerobic warm-up is essential—a brisk walk down the street should do the trick. To burn a little fat along the way, set up in advance and move quickly from one exercise to another—and drink plenty of water, at least six pints per day.



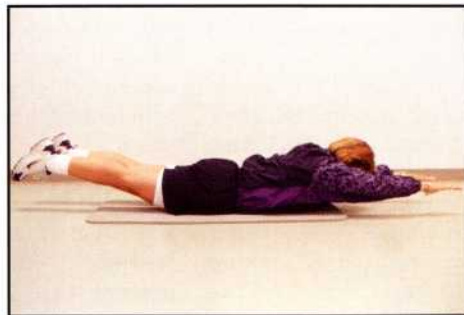
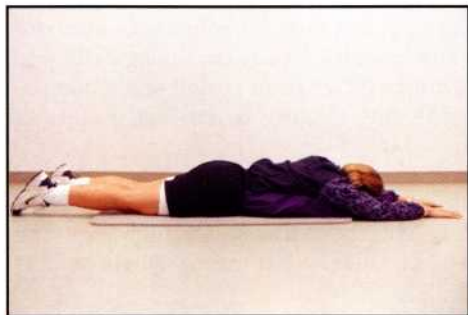
Bicep Curls (25 repetitions): Grasp a soft drink can in each hand. Stand upright with a solid stance, keeping elbows fixed at sides, curl the cans upward to chest; lower slowly, with control, until arms are fully extended.

Shoulder Press (25 reps): Starting at shoulder level, push the cans upward until arms are fully extended over the head.



Leg Extensions (25 reps): Sitting in chair with feet held slightly off floor, fully extend each leg and return to original position.

Calf Raises (25 reps): Place phone directory on floor against wall. Facing the wall, stand with feet half overlapping the edge. With hands against wall for support only, push up onto toes; relax and allow heels to roll back down over the edge.



Back Extensions (10 reps): Assume the "Superman position," face down on the floor, arms and legs fully extended. Looking down to avoid neck strain, lift head, shoulders, arms and legs, then lower slowly.

continued



Bench Dips (25 reps): Sit on edge of chair with hands palm-down at sides, fingers facing forward. Slide bottom forward so weight is supported by feet and straight arms. Keeping trunk upright, lower body until elbows are bent to 90 degrees, then push down with hands to straighten elbows and return to upright position.



Squats (15 reps): Stretch the rubber "tube" (available at discount and sporting goods stores) under instep with feet placed shoulder width, gripping handles at shoulder level, fingers forward. Slowly squat as though sitting in a chair until knees are at 90-degree angle. Keep knee joint above foot, maintaining a flat back by keeping head up and bottom out. Push up to standing position. Check technique by performing in front of mirror.



Chest Press (15 reps): Lie on back, knees drawn up with feet flat on floor, a 5 lb. weight in each hand, elbows on the floor. Slowly raise weights until arms are fully extended. Lower to starting position.

Department of Geriatric Medicine Addresses Aging Health Issues

The OU College of Medicine is only the third medical school in the nation to establish a geriatrics department and give the study of geriatrics and the care of elderly patients a formal place in the curriculum.

Headed by Dr. Marie Bernard, the Department of Geriatric Medicine is the only OU department housed in the Veterans Affairs Medical Center, which has a long history of caring for elderly patients. Bernard also directs the VAMC geriatric extended-care unit.

OU medical students now study geriatrics each of their four years in medical school and have first-hand involvement with the care of elderly patients.

While serving in the extended-care unit, medical students will assist with the rehabilitation of elderly patients who face the chronic or limiting conditions often associated with aging, such as arthritis, hip fractures, diabetes and stroke. The program offers a multidisciplinary approach that emphasizes rehabilitation and maintaining independence.

The department also offers an accredited fellowship program for post-graduate study in geriatrics. At the

present time, the number of geriatric specialists is only about 6,000 nationwide.

"There is a tremendous need for physicians with geriatrics training," says Bernard, who sees private patients through the University Physicians Medical Group. "Almost every physician deals with geriatric problems, yet most are ill-equipped to take on the unique problems facing our aging population."

Geriatricians are both specialists and primary care physicians for older individuals, she points out. "It is challenging to make sure our medical colleagues and students understand how physiologically, pathologically and socially older populations differ from middle-aged populations," Bernard points out. "Aging is not just a state of mind."

The number of U.S. residents over the age of 65 is expected to double by the middle of the next century when one in every five Americans will be elderly. Already, the number of the "oldest old"—those 85 and older—has increased almost 300 percent since 1960.