As we get a little older, all of us notice that certain everyday physical tasks become a bit more challenging. There are many potential reasons behind this, ranging from changes that occur as a result of normal healthy aging to a decrease in our physical activity levels to even injury or disease. Although there are many documented changes that have been attributed to aging such as reduced muscle strength and a decrease in balance, many of these factors are likely more impacted by decreased physical activity levels than simply aging. One such physiological adaptation that occurs as we get older relates to flexibility and range of motion (ROM). Although it has been shown that our muscles and tendons may eventually lose some of their pliability, we do maintain the ability to slow down this loss through regular physical activity and by including often over-looked flexibility (“stretching”) exercises. The goal of this article is to stress the importance of a regular stretching routine.

The most obvious benefit of regular stretching (when done appropriately) is an increase in joint ROM. For example, one may see a greater ability to move the arm in a full circular motion at the shoulder or fully flex and extend the leg at the knee joint without pain or discomfort. Therefore, an increase in ROM can have a significant impact on how well one is able to perform a simple task (or what used to be a simple task) such as:

**PrimeTimes**

**NEWSLETTER OF COASTAL CAROLINA UNIVERSITY’S CENTER FOR ACTIVE AGING AND RETIREMENT**

**Fall/Winter 2007**

**SMILE-A-WHILE**

*PrimeTimes* recognizes that there is always room for a smile – occasionally even a laugh out loud – among the serious topics we address. If you have a humorous story about the lighter side of aging, send it in and we may publish it in future issues of the newsletter.

A cocky U.S. Department of Agriculture representative stopped at a farm and talked with a farmer. “I need to inspect your farm,” he said. The farmer, who was in his mature years, said, “OK, but don’t go in that field right over yonder.” The agriculture representative said, “Mister, I have the authority of the United States Government with me. See this card? The card means I am allowed to go WHEREEVER I WISH on any agricultural land. No questions asked or answered. Have I made myself clear?” The farmer nodded politely and went about his farm chores. Later, the farmer heard loud screams and saw the agriculture rep running for the fence and close behind was the farmer’s huge-horned prize bull. The bull was gaining on the agriculture rep with every step. The rep was clearly terrified, so the farmer immediately threw down his tools, ran to the fence and shouted out... “Your card! Your card! Show him your card!”

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**PHYSICAL ACTIVITY & FITNESS... IMPORTANT FOR ALL AGES**

“Flexibility: an often overlooked component of physical fitness.”

By Michael Smith, ACSM certified health and fitness instructor, and Greg Martel, Ph.D., research coordinator and associate professor, Coastal Carolina University

This is the fourth of a five-part series on physical fitness for older individuals. Previous articles dealt with: Definition of “Physical Fitness” from the set of attributes by Centers for Disease Control and Prevention; Aerobic Exercise and Cardiovascular Fitness; The Heart of Physical Fitness and Weight and Composition; knowing the difference because of potential effects on bodily movement and some diseases. For these earlier articles go to www.coastal.edu/caar and click on PrimeTimes starting with the Winter 2006-2007 issue.

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“Flexibility: an often overlooked component of physical fitness”    Continued from page 1

...Continued from page 1

The only way to catch these problems is to have your blood screened at regular intervals. The problem with this from the patient’s standpoint, is that there are usually no symptoms until the sugars start to run at a very high level, which is one of the very last things to go wrong. For many years prior to the sugars becoming elevated, harmful processes are going on in the body. The most important of these is inflammation and fat build up in the blood vessels throughout the body; a process that eventually leads to strokes, heart attacks and amputations. This phase of damage occurring prior to blood sugar elevations is termed “pre-diabetes” and can go on for 10 or 15 years before the sugars start to rise. It is crucial to get going early with lifestyle changes and medication in order to maximize the chances of preventing irreversible damage.

Screening tests designed to identify people when they are in the pre-diabetic phase are the best way of improving the chances of identifying the disease at its earliest and most treatable stage. Anyone who is overweight, inactive, has a family history of diabetes or feels tired should strongly consider undergoing screening tests. Almost all of the complications of diabetes are preventable or treatable providing that they are caught early enough. Indeed, the entire disease can be cured in its early stages with the correct treatment and lifestyle changes. The only way to catch these problems is to have your blood screened at regular intervals.

Dr. Philip Nicol is the director of The Diabetes Center, the only medical practice in the region devoted solely to the treatment of diabetics. The center offers free, no obligation, screening for diabetes and pre-diabetes Monday-Friday. To contact Dr. Nicol or to schedule a free screening, call 843-293-8400.

If you would like to nominate a facility for this feature – or if you are involved in an organization that would like to be featured – we want to hear from you!

You will often hear about “The Diabetes Epidemic.” By the time they reach 60 years of age, 45 percent of the population will have developed diabetes or metabolic syndrome, a pre-diabetic state. Any disease that affects almost one out of every two people is worthy of the term “epidemic.”

It is no great mystery why this is occurring. Type II diabetes, which is the disease that makes up more than 90 percent of diabetes get, is caused by overeating and under-exercising. We almost all eat too much and often make poor food choices, preferring high calorie carbohydrate rich foods to healthier choices. Many of us partake in limited serious exercise once we are past the age of 30. Our children often lead lives devoid of exercise by the time that they are teenagers. Nature punishes us for sloth and gluttony. All of the excess calories that we consume that are not needed for daily living are stored in the liver, muscle cells and fat cells causing disruption of the normal functioning of these organs. This eventually results in excess levels of blood sugar and dangerous fats in the blood, leading to strokes and damage to the heart, kidneys, eyes and nerves.

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Spotlight on The Diabetes Center

Diabetes...It just sneaks up on you!

Each issue of PrimeTimes will feature an outstanding local agency, business, service, medical or other organization serving older adults on the Grand Strand to illustrate the range of services available in the area and listed in the Senior Services Directory www.coastal.edu/seniorservices.

If you would like to nominate a facility for this feature – or if you are involved in an organization that would like to be featured – we want to hear from you!

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If you have comments or questions about articles in this issue, want to submit a Letter to the Editor, ask a question or make a comment, or if you would like to suggest appropriate subjects for consideration in future issues of PrimeTimes, the PrimeTimes staff wants to hear from you. Previous PrimeTimes newsletters are available on our Web site: www.coastal.edu/caar. If you want to be added to the PrimeTimes mailing list, just call, fax or write to let us know.

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PrimeTimes staff wants to hear from you!

If you are interested in learning more about the problems of the aging voice and the technical solutions for some of those problems, contact the Office of Lifelong Learning at CCU to find out more about classes planned for the future.
help for persons caring for the cognitively impaired. There are technologies that enable caregivers to continue caring for loved ones from a distance or while at work.

### Going Green

Green sustainability and hurricane proofing features just make good sense. Green features can be found in the materials (wood, insulation, paint, etc.) used to build houses and in the actual design of the homes and buildings we use. They can lower energy costs, provide cleaner air, and they can be aesthetically pleasing.

While CCU’s ‘smart model home’ is in the early stage, the research and educational partnership between the university and business and community partners is very timely and is being well received. Our aim is to not only build a model home that promotes the features described in this article—but to build livable communities. It is our aim to make this a better place for persons to live, regardless of age, and to truly add quality of life to those who interact. If you would like more information about this and related projects, contact the Center for Active Aging and Retirement at CCU.

### “Working to Build Smart and Livable Communities” (Continued from page 5)

light switches, thermostats, faucets and other controls mounted between 9 inches and 48 to 54 inches above the floor and operable with one hand, low entry steps, wide, passable doors with at least a 32 inch clear opening, lower and adjustable counter tops with knee spaces, visual alarms, and wood blockings or grab bars for future use.

### New Technologies Will Help Decrease Long-term Care Costs; Improve Quality of Life

Did you know that right now, South Carolina has one geriatrics medical doctor per 17,000 resident 65 years old and older? As boomers age, there will be even more health care demands. Smart technologies will provide doctors and other healthcare workers the ability to make house calls from their doctor’s offices. Some of these features include automated and networked homes and electrical devices that help enhance the quality of life of persons living within the home and for those who may be caring for them. Smart technologies are now available that can enable persons to have telemedicine within their homes. Other examples of these smart features include technology assistance for persons with movement disabilities, low vision, hearing impairments, and telemedicine within their homes. Other examples of these smart features include technology assistance for persons with movement disabilities, low vision, hearing impairments, and

### “Finding My Future” (Continued from page 3)

successful, Coastal’s ‘smart home’ will serve as a hands-on educating tool not only for the growing population of students throughout the colleges, but also for the growing population of residents.

In July of 2007 I was given the amazing opportunity to go to the International Association of Gerontology and Geriatrics VI European Congress in St. Petersburg, Russia, to represent our school and our country. Professionals from all over the world met for four days to discuss the work and research being done in geriatrics and gerontology. Through meeting and speaking to the other attendees at the Congress it became remarkably clear, very quickly, that the problems we are facing here in America are very similar to those in other countries around the world. Compared to some countries, the U.S. is years ahead in organizing ways to take care of our elderly, but in other cases we have a lot to learn. To rectify this problem it will take not only the support of educated doctors, scientists and psychologists from across the world, it will also take the hard work of people from all walks of life. The overwhelming shift in the population, the “Graying of America” as some have called it, will affect not just nursing homes and Social Security, it will affect advertising, real estate, health care and, most importantly for me, our families, my hope is that more students will feel the same passion for this work as I do, so that some issues of aging will be on the road to solution before the numbers are too large to ignore. This will cause the dramatic change discussed before, and it will take professionals in all fields to prepare for the future. Luckily for us, here at Coastal we already have the tools available to us to learn how to help our community. Through my work in the Gerontology Certificate Program I have been set on the path to help with the changes and to start my career. The future looks bright with an upcoming Gerontological Society of America meeting in San Francisco this November, and then (hopefully) a semester-long internship with the Association of Gerontology and Higher Education in Washington, D.C. I encourage all of Coastal’s students to consider this program for themselves.

When entering Coastal Carolina University in the fall of 2002 I had the same major that most freshmen do — Undeclared. I knew that my major would inevitably end up being psychology, but I was hesitant to declare because I was waiting to find my niche, that spark that would give me a feeling of passion for my work, so that I might one day have a career that I love, instead of a job where I work. In the fall of my sophomore year and thanks to my academic adviser, Billy Hills, I ended up right where I was meant to be, in a class called gerontology. In this one class I discovered the spark and passion for a subject I was looking for. The next semester I enrolled in “Psychology of Aging,” and it cemented my love for the subject. I knew I had found my niche. From there, I declared my major and decided to pursue a bachelor’s degree in psychology with a certificate of gerontology that would allow me to work with the ill, the dying and the bereaved. Through the Gerontology Certificate program I started my internship for Coastal’s Center for Active Aging and Retirement. This has opened up possibilities that never would have been accessible to me otherwise and has made realize that there are more aspects of aging than just retirement homes and hospice.

In the spring of 2007 I attended the Aging Leadership Summit where Lt. Governor Andre Bauer and the U.S. Assistant Secretary for Aging, Joselina G. Carbonell, discussed and answered questions about the radical demographic changes that are happening in our area and across our country. They also discussed how the government is planning to prepare and handle these changes. During the summit’s reception, I was also able to meet and interface with the leaders of the geriatric community from all across the state. Another event that will remain dear to my heart was the Internet telecast “Living with Grief, Before and After the Death” sponsored by the Center for Active Aging and Retirement. This telecast was directed at hospice employees, counselors and all others who have dealt personally or professionally with grief and dying. For the first time, I was able to talk with people who do exactly what I want to do, help and counsel the dying and bereaved. My internship has also allowed me to sit in on meetings with contractors and intelligence technology companies who are creating the ground floor for the construction of “smart homes” in the Horry County area. These homes will make it possible for people to “age in place” regardless of disabilities or illness, because all these homes are built with universal design, smart technologies, green sustainability and hurricane proofing. I have also seen the plans for the changes that will be made to the Coastal campus to accommodate its growing numbers. The Center for Active Aging and Retirement is currently trying to include in those changes Coastal’s own “smart home.” If continued on page 6

“Finding MY Future... Knowing What I Want as My Life’s Work” by Kristen Habefland, Coastal Carolina University

Lifelong Learning Fall ’07 Course Schedule now available online... check it out! www.coastal.edu/outreach
A NGEL HELPED ME GO TO COLLEGE

By Heather Parker – Gerontology Intern, Coastal Carolina University

I was 27 years old, working in the snack bar of a Myrtle Beach area golf course. Business was slow as I sat at the counter studying a college textbook, something I often did when time permitted.

An older member, but young at heart, noticed and said, “I didn’t know you were going to college, Heather, but it’s good to see someone who studies hard.”

“I actually am trying to help my boyfriend with his lessons,” I replied.

“You mean you’ve already graduated?”

I explained that I attended college several years back but dropped out close to graduating because I could no longer afford it. He asked if I’d return to finish if given the chance and, if so, how much money would be needed. I said I’d gladly go back and since my previously accumulated credits should be accepted, I estimated the cost at $3,500.

The next day he came to the club and asked if I was serious when we talked the day before. Would I really go back and since my previously accumulated credits it was impossible for me to accept his generosity. I tried to give the check back.

“No, Heather. I won’t take it. If you’re willing to spend several more years and many more thousands of dollars to complete my degree. So I went to the member and told him what had happened and said that the extra cost made it impossible for me to accept his generosity. I tried to give the check back.

While checking with Coastal, I was surprised to learn that the vast majority of my previously accumulated credits couldn’t be transferred. I learned that it would take several more years and many more thousands of dollars to complete my degree. So I went to the member and told him what had happened and said that the extra cost made it impossible for me to accept his generosity. I tried to give the check back.

My angel was good to his word. We set up a separate bank account to keep track. In addition to my tuition and books he’s also paid for all other college-related expenses including a needed computer and its Internet online service. I’ve been a serious student majoring in sociology and am completing the gerontology certificate program. My cumulative GPA is 3.67. It’s been three years since I went back and I should graduate in December 2007.

I am grateful to my angel, who has asked to remain anonymous. Because of his generosity and kind heart I have been inspired to seek a career in the gerontology field where I too can help others along their life journey.

CORRECTION

The article on Vision in the Summer 2007 Prime Times had an incorrect phone number for Robin Makky at Allied Technologies. The correct phone number is 843-450-0065. We apologize for any inconvenience.

WORKING TO BUILD

Smart and Livable Communities...

By Jon Bowman, Ph.D., Director, Center for Active Aging and Retirement, Coastal Carolina University

Active Adults Bring New Expectations

With more than 10,000 American baby boomers reaching age 50 each day, there has come a shift in the mindset of how these active adults are defining their middle and later years. Most will say that their retirement from the labor force is out of the question. In comparison to previous older generations, aging boomers tend to be better educated, wealthier and healthier. They expect and will pay for services to help them remain self-sufficient and independent as long as possible, especially within their own homes and communities.

While census projections indicate growing numbers in aging populations, the southeast region of the United States is experiencing exponential growth of aging boomers and retirees relocating to the area. In fact, South Carolina ranks as the sixth most popular destination for retirement in the United States. The Myrtle Beach area is leading the state with the in-migration of active adults relocating in the area. According to a 2007 Census Bureau report, Horry County (i.e., Myrtle Beach area) is ranked the fourth fastest growing area in the nation.

Study of Retirees in the Myrtle Beach Area

In order to assess the likes and dislikes of the thousands of new retirees moving into the region each year, the Center for Active Aging and Retirement conducted a research study. One thousand residents 55 years of age and older responded to the survey.

Major factors that attracted the active adults to the region were the weather, social relationships, recreational amenities and entertainment attractions, the beach and ocean, and economic factors such as lower property taxes.

Major dislikes included a lack of master planning for the infrastructure of the region (transportation problems), followed by high cost of living and high insurance rates. Another concern is the rapid growth and development in the region. When asked to rate their overall quality of life here on a scale of 1 (very poor) to 6 (excellent), the survey respondents were pleased as indicated by the high overall rating of 5.41.

Qualitative information also showed concern by the retirees that the region was growing so rapidly that it lacked overall support services to enable persons to remain independent in their homes and in the region. This was particularly apparent if they experienced health problems.

Implications

Recognizing the long-term population growth projected for the area, the Center for Active Aging and Retirement at Coastal Carolina University is working closely with the academic community at CCU in addressing comprehensive “smart” community planning and design that enable persons of all ages to remain independent and active within their homes and within their communities.

This initiative will lead to active adults being able to occupy their homes for as long as they wish without having to make major modifications to their homes should there be any change in their health. Thus, people will be better able to control their health care costs; reduce strains on caregivers; reduce the potential of moving to assisted living and long-term care facilities; and decrease the likelihood that they will need to return to their families and/or native communities.

CCU is Partnering with the Community

To stimulate local interest and support for developing ‘smart’ community development and design, the Center for Active Aging and Retirement is promoting livable community research, application and implementation within the university in partnership with business and community leaders. These partnerships include university academic and research programs and centers, healthcare providers, smart technology firms, communication businesses, architects, developers and homebuilders, to name a few. At this time there is keen interest from all stakeholders in working with Coastal Carolina University in developing a model ‘smart’ home incorporating universal design, green sustainability, hurricane proofing, and ‘smart’ technology.

Universal Design Lowers Long-term Care Costs

According to AARP’s Public Policy Institute, it is estimated that the direct cost of falls in 2000 was $16.4 billion. It is estimated that by 2020 the annual cost of fall injuries by persons over age 65 and older will escalate to $43.8 billion. Universal design features can help curtail falls within the home and provides wise design features for persons of all ages. Examples of universal design include: open space floor layouts that have an accessible clear path (generally at least 36 inches wide), clear floor spaces especially around fixtures such as toilets, tubs, showers and sinks, controls within easy reach and easily operated such as...