Spring into Action

Spring is in the air, and what better time for a fresh start! As the flowers bloom, it is the perfect time to go out and enjoy the change in scenery. As you get older, it is important to maintain an active lifestyle, and although there may be some limitations, finding an exercise regimen that is appropriate for your age and physical condition may not only help maintain your waistline, but also your brain.

Can Exercise Improve Cognition?

Studies have shown that physical activity can reduce health risks for heart disease, diabetes, stroke, and osteoporosis, but in the past, a direct linkage to actual thought processes remained unclear.

Recently, there has been mounting evidence suggesting that mental functioning is associated with higher levels of regular physical activity in the elderly population. According to the National Institute on Aging (NIA), one study used MRI to measure changes in brain activity in healthy adults aged 58-78 before and after a 6-month program of brisk walking. The results found an association between the participants’ cardiovascular fitness and cognitive functioning in certain regions of the brain. Compared to a physically inactive group, walkers had better attention skills and focused more clearly on goals while disregarding unimportant information.

Results from another study suggest that with a certain amount of physical activity, such as walking, there may be a reduced risk in developing Alzheimer’s disease or at least some delay in its progress. In a study conducted by Danielle Laurin and her colleagues called “Physical Activity and Risk of Cognitive Impairment and Dementia in Elderly Persons” 4,600 men and women age 65 and older were followed for five years, and each participant’s cognitive functioning was observed over time. The results showed that those who exercised fared better cognitively, showing the least amount of deterioration of their thought processes, or a reduced chance of developing Alzheimer’s disease and other forms of dementia compared to those who were physically inactive.

Although the direct mechanisms behind the association are unclear, Laurin and her colleagues suggest that physical activity may protect against mental decline by helping to maintain blood flow in the brain, improving oxygen use in the brain, and by making more efficient use of nutrients. Furthermore, according to NIA, exercise can affect one’s mood and reduce feelings of depression, which may also have an effect on cognitive functioning.

Needless to say, not everyone can run for miles on end, but as suggested by the previously mentioned studies, moderate activities such

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as walking can also make a difference. For overall fitness and health in older adults, the NIA recommends four types of exercises, described below. These exercises together will help not only prevent certain diseases, but some can help you do more tasks on your own, maintaining a sense of independence.

1) Endurance Exercises

This category involves aerobic activities that increase your breathing or heart rate. These activities improve the health of your heart, lungs, and circulatory system, which may help delay or prevent age-associated diseases such as diabetes, heart disease, and stroke, while having beneficial effects on your cognition. Working on endurance will also help improve stamina, so doing daily tasks like grocery shopping or housework may become easier and more enjoyable. Examples of physical activities targeting endurance are brisk walking, yard work, dancing, jogging, swimming, biking, climbing stairs or hills, tennis, and basketball.

2) Strength Exercises

Two of the major health problems facing older adults are obesity and diabetes. With strength exercises increasing your metabolism, you can both control weight and regulate blood sugar levels. Studies show that increasing strength by exercising also may help prevent osteoporosis. These exercises can build up your muscles, and in the long run, having strong muscles can enable you to do more things or go to more places. For strength training, you can lift light weights or use a resistance band.

3) Flexibility Exercises

Flexibility exercises may help prevent injury and also aid recovery from injuries. Stretching out your muscles will help you become limber. It is a good idea to do some shoulder and upper arm stretches, as well as some calf stretches. Yoga would be a good example of this particular category of exercise.

4) Balance Exercises

Balance exercises help prevent falls, one of the major causes of injuries in the older population. Exercises to improve your balance include standing on one foot (if you must, you can use a hand on a wall or chair to help maintain balance), heel-to-toe walking, and Tai Chi. It is always a good idea to discuss with your doctor an exercise plan designed to accommodate your physical capabilities and lifestyle. Those who have heart problems, lung problems, or joint swelling should definitely consult with a doctor before doing any type of strenuous exercise. When doing physical work, you should never be in pain, and always be aware of your own body to avoid serious problems like dehydration or heat stroke. As discussed, moderate physical activity and exercise is effective. With that in mind, whatever your age, physical activity of all sorts can be done not only for your health but for pure fun.

-- Dawn La

References:
Exercise A guide from the National Institute on Aging: http://www.nia.nih.gov/HealthInformation/Publications/ExerciseGuide;
Genes, Lifestyles, and Crossword Puzzles: Can Alzheimer's Disease be Prevented? pamphlet released by National Institute on Aging, June 2006;

To see more sample exercises, go to http://www.nia.nih.gov/HealthInformation/Publications/ExerciseGuide.
Spotlight: Tamara Beale
Research Coordinator, Stanford/VA Aging Clinical Research Center, Department of Psychiatry and Behavioral Sciences, Stanford University School of Medicine

What happens in healthy aging and in Alzheimer’s disease? These questions drew Tamara Beale to the Stanford/VA Aging Clinical Research Center (ACRC).

Tamara’s interest in Alzheimer’s disease (AD) developed in the mid-1990s, as her beloved grandmother became increasingly forgetful. At that time, Tamara was working in Oregon on a study of brain aging and the earliest signs of AD. This combination of personal and professional experience fostered her enthusiasm for fighting AD and promoting health in aging.

After earning a master’s degree in developmental psychology at the University of North Carolina, Tamara returned home to the Bay Area. Since joining ACRC in 2002, she has worked on a half-dozen studies, examining aging and dementia from several perspectives.

Tamara has helped evaluate early changes in memory among nearly a hundred older adults enrolled in several projects. She also contributed to research on the genetics of Alzheimer’s, the economic burden of caregiving, and drug treatments for AD. Most recently, she coordinated a clinical trial of memantine (Namenda), looking for changes in brain chemistry. Her current activities focus on facilitating study volunteers’ participation in multiple projects associated with ACRC and the Stanford/VA Alzheimer’s Disease Center of California. The variety of research topics keeps Tamara intrigued.

Tamara also coordinates the ACRC brain donor program. She finds this work particularly rewarding, because autopsy results are the gold standard for diagnosing AD and similar diseases. Conclusive findings from autopsy can provide the donor’s family with a sense of closure and increased understanding, as well as the satisfaction that comes from making an invaluable scientific contribution to future generations. Donations create a solid foundation for innovative research at the ACRC and among qualified investigators across the world.

Central to Tamara’s efforts is her dedication to participants, their partners, and their families. She truly enjoys reconnecting with them over the years through clinic visits, calls and letters. She appreciates their many contributions and trust in allowing researchers to gain a deeper understanding of their experiences.

ADNI Announces Completion of Genome-Wide Analysis

A high-density genome-wide analysis of participants in the nation-wide Alzheimer’s Disease Neuroimaging Initiative (ADNI; www.adni-info.org) is more than 95% complete and that data will be shared with scientists around the world for further analysis.

The ADNI data will be used by researchers to search for genes that contribute to the development of Alzheimer’s disease (AD), which currently affects up to 5 million people in the United States alone.

ADNI, an ongoing $60 million project, is a public-private partnership supported primarily by the National Institutes of Health (NIH) with pharmaceutical and related industries and not-for-profit organizations providing support through the Foundation for the National Institutes of Health (FNIH). One of the largest scale neuroimaging projects ever undertaken, ADNI involves longitudinal magnetic resonance imaging (MRI) and positron emission tomography (PET) brain

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**Longitudinal Sleep Study**

This observational study is designed to look at sleep/wake patterns over the course of time in persons with memory problems. This study will collect a 1 week record of your sleep once a year, and will be conducted in your own home. No treatment is involved.

Participants should:
- Be 55 years or older
- Have memory impairment or dementia
- Live at home with a caregiver/study partner

To sign up for this study
Contact: Deryl Wicks
(650) 493-5000 ext. 64052

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**Citalopram for Agitation in Alzheimer’s Disease**

The goal of the study is to learn if Citalopram is helpful to people with Alzheimer’s disease who are experiencing significant symptoms of agitation. Participation is expected to last a maximum of four months.

You may be eligible to participate if you:
- Have a diagnosis of Alzheimer’s disease.
- Are experiencing significant levels of agitation.
- Have a caregiver available to attend all study visits.
- Are proficient in written and spoken English.

For more information,
Contact: Jeffrey Newell
(650) 493-5000 ext. 67627

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**Sleep Apnea in PTSD**

VA researchers are studying how sleep disordered breathing, age, and genetics may affect memory in older adult veterans with PTSD. Study participation involves: A screening visit to determine eligibility, yearly overnight sleep apnea screening, and neuropsychological evaluation.

Eligible participants:
Male veterans 55 years old and older

Compensation of up to $250 is available to those who complete the study.

For more information,
Contact: Emily Luther
(650) 849-0482
We are recruiting for a study that examines the usefulness of modafinil (Provigil) in treating sleep problems in Mild Cognitive Impairment or Alzheimer’s disease. We anticipate that this drug will both improve your nighttime sleep and make you less sleepy during the daytime. Modafinil is a drug that is FDA-approved for the treatment of sleepiness in a variety of conditions, but has not been examined in older individuals with memory impairment. The study takes place for 4 weeks in your own home, with weekly visits to the VA in Palo Alto. There is also a free screening for sleep apnea that will take place in your home.

You may be eligible to participate if you are:
• Diagnosed with Alzheimer’s disease or Mild Cognitive Impairment
• Live at home with a caregiver or partner
• Willing to take an FDA approved medication

This project is developing an approach to screen for memory problems in group sessions.

Each screening session:
• Begins with a brief talk on memory & aging
• Involves simple memory games many enjoy
• Reviews your results and concerns with staff

The next Memory Screening sessions are currently scheduled for the following time and place:

May 31, 2:30-3:15pm, Little House, 800 Middle Ave, Menlo Park, 650-326-2025

July 22, 1-2:30pm Sunnyvale Senior Center, 550 E. Remington Dr, Sunnyvale, 408-730-7360
imaging along with blood, urine, and spinal fluid biomarker studies of more than 800 individuals, half of whom have mild cognitive impairment, a condition placing them at risk for developing Alzheimer’s disease or another dementia.

**Goals of ADNI**

The primary goal of ADNI is to determine whether brain imaging, other biological markers, and clinical and neuropsychological assessment can accurately measure the progression of mild cognitive impairment and early AD. The identification of specific biomarkers of early AD and disease progression will provide a useful tool for researchers and clinicians in both the diagnosis of early AD and in the development, assessment and monitoring of new treatments.

One major AD risk gene, APOEe4, has been consistently shown to be associated with the form of the disease arising later in life that accounts for approximately 95 percent of all cases. It is widely suspected that variants in an ensemble of other genes play a role in susceptibility to the disease and may influence the age of onset, expression and rate of progression of neurodegenerative changes in the brain.

**Opportunities in Research**

“This new dataset provides a unique opportunity to evaluate the associations between a highly comprehensive dataset based on brain imaging, clinical examinations and other biomarkers and the entire genome or selected candidate genes,” said Andrew Saykin, Psy.D., director of the IU Center for Neuroimaging at the Indiana University School of Medicine, who leads the genetics research team.

“Where most prior research focused on the association between genetic variations and the presence or absence of Alzheimer’s disease, the new project and data should facilitate novel gene discovery based on associations with neuroimaging patterns detected in the ADNI data,” Dr. Saykin said.

For example, “this dataset can be analyzed to identify unanticipated genes associated with hippocampal atrophy, a characteristic of Alzheimer’s disease,” said Steven Potkin, M.D., director of the Brain Imaging Center of the University of California, Irvine, an investigator involved in the data analysis.

**Importance of New Data**

ADNI Principal Investigator Michael Weiner, M.D., director of the Center for the Imaging of Neurodegenerative Diseases at the San Francisco VA Medical Center and professor of radiology, medicine, psychiatry, and neurology at the University of California, San Francisco, said, “The release of this genetics data, in combination with the clinical, cognitive, MRI, PET, and blood/cerebrospinal fluid data already in the ADNI database, will now allow investigators to explore genetic factors related to the rate of progression of Alzheimer’s disease. Access to this huge amount of data on a public website, from an ongoing clinical study, is unprecedented.”

**ADNI Data Available to Researchers**

All data from the ADNI consortium are available to qualified investigators through a web-based database (www.loni.ucla.edu/ADNI).

“It is critical that data generated by the support of public funds be made available as quickly as possible to the research community,” said Neil Buckholtz, Ph.D., chief of the Dementias of Aging Branch at the National Institute on Aging (NIA) at NIH. “ADNI is fast becoming a model for how data can be shared and how it can be done with speed, so that important investigations to provide answers on Alzheimer’s disease can be pursued more intensively.”

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Eric Schoch, IU School of Medicine  
Peggy Vaughn, National Institute on Aging  
Thuy Morzenti, Foundation for the National Institutes of Health
Medication Overload: Watch for Drug Interactions

A hot topic in the news lately has been about medication interactions with older people. Associated Press medical writer Lindsey Tanner wrote a story titled, “Millions of older Americans use risky drug combos,” which encapsulated the problem well.

As people age, they often are prescribed more medications for compounding health problems. They also are more apt to take herbs and over-the-counter medications. The sum total of these products can end up being a toxic stew. Since older adults often don’t metabolize medications well, the buildup in the body can worsen this problem.

Doctors tell people to bring in their medications when they have an appointment. But often people don’t think of over-the-counter (OTC) medications, herbs and vitamins. Also, medical people are not often trained in herbs and vitamins, so they can either miss a bad mix, or they will just say “quit taking all that stuff,” which to me, an admitted vitamin advocate, seems like it can be damaging to one’s health, as well.

I can’t overstress the number of times I’ve suggested to people that they take all of the medications they ingest to one pharmacy and ask the pharmacist to put the medication names into the computer. The drug store’s computer system should be able to pick up interactions. Ask questions. Pharmacists are trained in drugs. It’s what they do. They are likely your greatest resource for drug safety information.

The website www.consumermedsafety.org can help you do your own research. There are many other drug interaction sites online, as well. Checking with a pharmacist is a great backup.

So, even after the doctor visit you make with your elder and his/her medications, double check. Triple check. Watch those medications carefully. They are powerful tools intended for good. However, they can also do great harm, especially in the wrong combinations. We must be our own - and our elder’s - advocate.

--- Gerald Georgette, RN

Source: http://www.healthcentral.com/alzheimers/

Make a difference: Help end Alzheimer's Disease!

A contribution to the Aging Clinical Research Center is a gift to future generations in our quest to cure Alzheimer’s disease. Your generous support ensures that the Center continues to conduct top-quality clinical research to improve treatment options and to provide education and support for patients and families. With your help, our clinical researchers investigate the causes of memory loss and neurodegeneration, develop and test better treatments for Alzheimer’s disease, and share these discoveries with the local community and with scientists around the world.

Tax-deductible contributions can be made by check, payable to: Stanford University

Please indicate Stanford/VA Aging Clinical Research Center in the memo line.

Mail your contributions to:

Jerome Yesavage, MD, Director (151Y)
Stanford/VA Aging Clinical Research Center
3801 Miranda Avenue
Palo Alto, CA 94304

Gifts may be made in honor of someone’s special occasion or in memory of someone who has passed away. Please provide the name of the person you wish to honor, as well as the name and address of anyone whom you wish to receive an acknowledgement of the gift.

For additional information about the Stanford/VA Aging Clinical Research Center and opportunities to contribute, call (650) 852-3287. All donations are tax-deductible.
UPCOMING EVENTS

11th Annual Updates on Dementia Conference: Translating Research into Practice

Wednesday, June 3, 2009, 8:00am - 4:00pm, Crowne Plaza Hotel, Foster City, CA

This year, the Updates on Dementia conference will cover a number of subjects of interest to Alzheimer’s Disease patients and their caregivers, such as emerging research on biomarkers, new medical treatments, clinical trials, strategies for better care, sleep problems, hoarding behavior, and health literacy.

Alzheimer’s Association Memory Walk

Silicon Valley Memory Walk: Saturday, September 12, 2009, 8:30am -12:00 noon, Arena Green, Downtown San Jose.

Treasure Island Memory Walk: Saturday, October 10, 2009, 8:30am - 12:00 noon, Treasure Island, San Francisco.

The Alzheimer’s Association Memory Walk® is the nation’s largest event to raise awareness and funds for Alzheimer care, support and research – and it calls on volunteers of all ages to become champions in the fight against this fatal disease. This year, the Stanford/VA Memory Walk Team will be at both of the Bay Area Walks. To support the Stanford/VA Memory Walk Team, contact Ban Ku at bankusan@gmail.com or (650) 849-1971.

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To add or remove your name from our mailing list, call (650) 852-3287 or visit the ACRC web site.

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