



Health Hunters Newsletter

A service of the Riordan Clinic, cofounded in 1975 by Olive W. Garvey and Hugh D. Riordan. The Riordan Clinic is a not-for-profit 501(c)(3) corporation. Go to www.riordanclinic.org to make your tax deductible donation today or visit us at 3100 N. Hillside, Wichita, KS 67219.



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AGING GRACEFULLY: WANT TO POSTPONE YOUR EXPIRATION DATE?

by Charles Hinshaw, Jr., MD



It has been said that, "Aging is like pornography—we know it when we see it." True enough, but the question remains, how can we measure it in the doctor's office or the medical laboratory? And, if we can measure aging, what can we do about it? In this paper some of the most current data on aging will be presented, followed by a discussion of modern theories and facts which are leading to our understanding the

process of aging, and concluding with suggestions on how to slow aging (this is doable), and perhaps how to reverse it.

Is life expectancy lengthening? Yes, it is rising world-wide at the rate of about three months per year. This is primarily because of progress against premature mortality. However, since 1980 this has no longer been true for already-old people in rich countries like the U.S. In fact, U.S. official estimates of remaining years of life for a woman aged 65 may soon be revised downward. Also, remember that life-expectancy, i.e. how many more years will the average person of (place your own age here) expect to live, is not the same thing as human lifespan.

The human lifespan record is 122 years. Currently, the oldest woman in the world, Besse Cooper, a retired schoolteacher in Georgia, is 116 years old. The record is 122 years and 164 days, set by Jeanne Calment of France in 1997. There are fewer women over 115 today (two) than there were in 2006 (four) or even 1997 (three). Thus, it is apparent that while life expectancy in most parts of the world is lengthening, as we approach ages beyond 100 years, no lengthening of life is found. (Wall Street Journal, June 9 – 10, 2012).



Perhaps, if we could identify markers of aging we might be able to figure out the causes of aging, thereby developing ways to slow, stop or reverse aging. If we don't want to live as long as Biblical characters, maybe living a long, healthy life would be an achievable



Letter from the Editor:

by Amanda Hawkinson

In a world focused on outward beauty and youth, it seems we're all trying to find the "magic pill" that delays the natural aging process.

Put an anti-aging label on most any product and it flies off the shelves. Yet if you're trying to look your best without going under the knife, a secret ingredient might be right under your nose. Some experts say one answer to aging gracefully can be found in the grocery store—in fruits, vegetables, green tea, and a host of other healthful foods that are rich in antioxidants and other potentially age-detering compounds.

This issue of the *Health Hunters Newsletter* uncovers the various secrets of aging gracefully. Learn how adopting a healthy lifestyle can be your greatest defense when it comes to warding off aging.

Remember, dietary choices are critical to delay the onset of aging and age-related diseases, and the sooner you start, the greater the benefit.

Amanda Hawkinson
Editor

newseditor@riordanclinic.org

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Aging Gracefully continued from page 1...

goal. After all, well-cared for domestic animals often live in nearly perfect health until near their time of death. In the following paragraphs you will find four highly significant factors in aging, the glycation phenomenon, telomere shortening, cell membrane disruptions and decreased adult stem cells. There is some overlapping or commonality in all of these, and treatments targeted at each may also be helpful in the others.

The glycation phenomenon has a very descriptive identifying acronym, AGE (Advanced Glycation Endproducts). The reference here is to the end products of metabolism. These consist of useless residue that cannot be eliminated or reused. An example would be the beta amyloid that is readily identifiable under the microscope in the brain of Alzheimer patients. AGE is like the ashes in your fireplace, except that AGE can't be removed. How does this happen, and how can we prevent it?



Truthfully, there is no way to completely prevent the formation of AGE, but there

is a way to slow it down. AGE results mainly from the reaction of blood glucose with proteins, a constant, on-going event essential for life. The higher your blood glucose levels, the more AGE is produced. Since AGE accumulates in every organ and tissue of the body, and since AGE creates organ malfunction and tissue decay, we need to slow down this process. We can slow it down by maintaining a normal level of blood glucose.

This is best achieved by limiting the consumption of carbohydrates and maintaining a normal body weight. A simple approach is the Paleolithic Diet which eliminates grains, sweeteners and dairy products, allowing only meats, eggs, nuts, vegetables and fruits. Average blood glucose levels can be monitored by determinations of HbA1c (Glycated Hemoglobin) at regular intervals; normal levels are 4.0 to 4.9, 70% of Americans have levels of 5.0 to 6.4, and diabetics register levels from 6.5 to 15. Persistent, and even recurring high levels of blood glucose after meals leads to Metabolic Syndrome and Diabetes with premature aging and such abnormalities as cataracts, high blood pressure, high cholesterol, strokes, kidney disease, arthritis and dementia. Not good. Other laboratory studies useful in the evaluation of AGE (aging) include the erythrocyte sedimentation rate, high sensitivity CRP and inflammatory cytokines. These are all markers of inflammation.

The word telomere is derived from two Greek words, *telos* meaning "end", and *meros* meaning "part". Thus, telomere is used to denote the "end cap" on every chromosome. These end caps prevent deterioration of chromosomes during cell division and repair, and also prevent fusion to neighboring telomeres. However, after each cell division our telomeres shorten, slightly. Human cells are programmed for 60 to 100 cell divisions. This is known as the "Hayflick Limit," after its discoverer Dr. Leonard Hayflick in the early 1960's. This is programmed senescence—a time to live and a time to die. Technically, both somatic and reproductive cells age by the same rules, and aging correlates with shortening of telomeres. If only we could figure out how to prevent shortening of telomeres we might have a way to prevent aging. As it turns out, the telomeres on reproductive cells do not shorten, but are repaired after each cell division under stimulus from an enzyme called, naturally, telomerase; each



Aging Gracefully continues on page 3...

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Invest in the Vision

Your investment toward one of the areas listed below will enable the Riordan Clinic to continue its reputation as a leader in nutritional medicine. A contribution ensures that co-learners continue to receive health, hope and healing through cutting edge programs, products and research.

- **Complete Blood Count (CBC) Instrument**—\$13,000 CBC is the most frequently ordered test, crucial in diagnosis and evaluation.
- **Conversion of Clinic published books to e-Books**—\$2,000 (\$200 each)
- **Medical journal subscription renewals**—\$100–\$700 each
- **Landscaping**—All donations are appreciated. The Clinic is known for its beautiful campus and the tranquility that patients value. Mulch, equipment, seasonal flowers, etc. will maintain the aesthetically pleasing surroundings.

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If you have questions, contact Paula Smith at 316-682-3100.



forward tick of the aging clock is met by an addition to the telomeres, setting the aging clock back one tick. Both reproductive and somatic cells have the same gene that causes production of telomerase. However, the telomerase gene in somatic cells is blocked, preventing production of telomerase. In 1998 a team at Geron Corporation, through genetic engineering, produced somatic cells that produced telomerase, just like reproductive cells. Two cell lines were moved from mortal cells to immortal cells!

The search for substances that can turn on the telomerase gene is on, hot and heavy. Of great promise is an extract from a select variety of astragalus plants found in a specific region in China. This extract, protected by 270 filed patents, has been used in humans since 2005, without any

adverse side effects, and with apparent extension of the "Hayflick Limit". The product, TA-65 (Telomerase Activator), may extend lifespans by decades, some believe to 150 years. The cost, as near as I can determine, is about \$1,000 per month.

Fortunately, there are ways to naturally decrease shortening of telomeres. Studies now in progress show that increasing glutathione (GSH) will actually provide results similar to TA-65. Special nano-preparations of glutathione are now available and effective. Glutathione is manufactured inside your cells from the amino acids glycine, glutamate and cystine. A convenient source of these sulfur amino acids is whey. Studies also show decreased shortening of telomeres results from high intensity exercises, a form of interval training, and from intermittent fasting. This form of fasting has been shown to increase cognitive function, raise levels of growth hormone and testosterone, improve body composition and prevent depression.

"Growing old is not for sissies."

—Ethel Mermen

Cell membranes are like flies at a picnic, they are everywhere. They form the outer covering for every cell in the body, and also form a cover for organelles inside each cell, including the nucleus, mitochondria and the Golgi apparatus. In the deepest sense, the cell membrane is where the action is. The cell membrane is where the cell defines itself from other cells, and from the outside environment. Information is exchanged and the chemistry of life, the synthesis of molecules, the transfer of electrons occurs in the cell membrane. It contains channels and pumps, and information receptors. This complex structure, now referred to as a fluid mosaic membrane, was first proposed in 1972 by Americans S.J. Singer and Garth Nicolson. It consists of a double, bilayer of lipids, glycolipids, proteins, and glycoproteins, forming an amphipathic structure that is water loving (hydrophilic) on the outside and water hating (hydrophobic) on the inside. Injuries to the cell membrane occur, frequently through oxidation. This results in an increasingly "leaky" membrane that allows protons and ions to move across the membrane. When, for example, the



Marie's Cafe And Bakery

at the Riordan Clinic

Kitchen Hours 9:00 am – 3:00 pm M–F
Bakery Hours 9:00 am – 3:30 pm M–F
(Located on the lower level of the Riordan Clinic Supplement Store)

Marie's creations began in 1983 after her son was diagnosed with Type I Diabetes. **Making healthy, made-from-scratch meals and low sugar treats became her specialty.** Marie has recently moved her café into the Riordan Clinic and continues to provide a healthy menu focusing on sandwiches, wraps, salads, soups, along with breakfast and vegetarian choices, plus HCG friendly meals and catering options. Marie's Café & Bakery bridges the gap between gourmet and healthy foods. It's worth the wait.

"Caring for the whole person has always been our focus."

—Marie Hunt, Owner

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mitochondria are damaged, we perceive this as fatigue. This decreased ATP production by the mitochondria has recently been reported as a test for Chronic Fatigue Syndrome (Mikirova, Riordan Clinic, 2012). It is easy to see that damage to cell membranes can result in aging. Fortunately, there is an effective approach to assist the healing of damaged cell membranes through Lipid Replacement Therapy (LRT). This LRT is available in the form of a stable oral supplement that emulates the amount and composition of the mitochondrial lipids. It is available from Allergy Research Group, 800-545-9960.

Finally, it has been found that adult stem cells diminish in number with age, that old biologic clock in action. These cells, produced in the bone marrow and released into the general circulation are programmed to search for damaged or dead cells, and to replace them in the organ involved, as identical replicates, with no loss of function as long as enough stem cells are available. This sounds like another path to advanced, healthy old age, a veritable Shangri La. Earl Mindell, PhD, R.Ph. noted authority on nutrition, is now marketing a product "backed by Nobel prize winning science," that is composed of "Ten Super Nutrients" that will boost the release of adult stem cells into the blood. Stem Trol may rewind your biologic clock resulting in firmer skin, more energy, a healthier heart, sharper mind and memory, and greater resistance to colds, flu, etc. This product is not sold in stores: Call 1-800-791-5412.

As Ethel Mermen so famously said, "Growing old is not for sissies." Considering the foregoing nutrient and life-style recommendations for the postponement of my expiration date, I would say that she was dead right (couldn't resist the pun). From my perspective, lifestyle changes make a lot of sense. Of the supplements described above, I hate to use the term nutrients because they sound like medications rather than nutrients, I believe all are safe to try, but their efficacy remains to be seen. Glutathione certainly is worth a try. I would defer taking TA-65 because of cost. All things considered, and considering the alternative, I still think growing old is the better choice. **Be well.**



WE ARE EXPANDING!

Are you, or do you know, a like-minded physician (MD, DO) interested in fulfilling the Riordan Clinic's mission of "stimulating and epidemic of health?" Someone who sees patients as equal participants in their health?

Our current doctors are amazing, and due to recent change and tremendous growth, we are looking to add to our team. Dr. Ron Hunninghake, Chief Medical Officer, is looking forward to mentoring the next generation of nutrition minded doctors.

For more information about this incredible opportunity contact **Donna Kramme, COO at dkramme@riordanclinic.org or 316-682-3100.**

Thank you for your continuous support, believing in what we do, and for spreading the word!

Supplement Special

All supplements are
25% off
during our bi-annual Check Your Health Event. Some supplements with aging benefits include:



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SALE \$10.84



Vitamin D₃ Liquid 1000IU
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SALE \$11.42



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SALE \$41.06



Vitamin K2 MK₇
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SALE \$17.48



Milk Thistle Solgar
Reg \$15.70

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Ultra Greens pH
Reg \$35.70

SALE \$26.78



**Echinacea with
Goldenseal** Reg \$15.81

SALE \$11.86



**Echinacea Liquid Gaia
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SALE \$16.26



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You don't want to miss this historical event. Our 2012 symposium will serve as an excellent opportunity for practitioners to become more involved with intravenous vitamin C therapy, adjunct therapies and expound new approaches to treating cancer. Topics include:

- **What is the Best Way to Dose IVC for Cancer Patients?** A Panel Discussion
Hunninghake, Riar, Levy, Gonzalez, Miranda-Massari, and Sullivan
- **KUMC IVC Ovarian Cancer Study** · *Sullivan*
- **Better Oxygen Utilization Improves Cancer Outcomes** · *Shallenberger*
- **The Dental Link to Cancer** · *Margolis*
- **IVC Prevents and Treats Cancer Associated Sepsis**
Gonzalez and Miranda-Massari
- **IVC, Inflammation, and Bi-oxidant Paradox**
Hunninghake, Hinshaw, and Mikirova
- **Visit our website for a complete list of topics and speakers.**

DON'T DELAY—Our 2010 Symposium was sold out.

A complimentary antioxidant lab panel is included with the registration fee. Value: \$178

For more information or to register,
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Longevity Herbs

by Laurie S. Roth-Donnell, Master Herbalist, Holistic Health Practitioner

Professor Luigi Capasso from the National Archeological Museum of Italy discovered what may interestingly enough be the first physical evidence of humankind utilizing plants as medicine. This remarkable discovery was an Ice Man named *Lancet*. This Stone Age man was found with two mysterious spheres attached with a leather thong, thought to contain medical healing herbs. Also discovered, upon full examination of *Lancet*, were tattoo like marks on his skin that are speculated to be evidence of a primitive form of acupuncture, practiced as a localized treatment for painful muscles. (Vanrenen, 2000) For centuries, societies from around the world have sought out and used longevity herbs in support of vitality. There are many herbal longevity specimens worthy of consideration when selecting the world's top longevity herbs. However, before identifying which herbs should be garnered as the world's top longevity herbs, agreement must be made as to the 'characteristics' of longevity herbs.

A longevity herb should support overall health through rejuvenation, nourishment, and toning of one's body, as well as, support a healthy immune system, strong endocrine system, and build healthy blood. Western scientists are just beginning to realize the importance of and how to
Longevity Herbs continues on page 6...

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Healthy Aging

by Sarah Nosker, Certified Medical Assistant

When I think about aging, the first thing that comes to mind is the pesky grey hairs that seem to be cropping up on the top of my head and the fine wrinkles around my mouth which my younger sisters fondly refer to as “laugh lines.” If there was a magic elixir we could take to stop the signs of aging, I think many of us would be the first in line to try it. The United States spends approximately 80 billion dollars a year on anti-aging products. That is an astonishing number and is only projected to grow! We need to take a good look at what causes the signs of aging and aging-related diseases.

As we age, the long term effects of oxidative stress (an abundance of free-radicals wreaking havoc) and inflammation on the cellular level take their toll. We commonly think of inflammation as a short term response to a tissue injury that produces characteristic symptoms. However, chronic low-level inflammation can be very destructive and threatening to your health without you even knowing.

Such was the case with a co-learner who began her journey with the Riordan Clinic approximately a year ago. This patient had numerous auto-immune disorders, joint pain, swelling and flu-like symptoms as a result. The co-learner scheduled an appointment with one of our Riordan Clinic doctors who first ordered lab-work which consisted of checking her C - reactive protein level. C - reactive protein is a protein that can be measured in your blood. It appears in higher amounts when there is swelling (inflammation) in your body. This patient had a CRP level of 50. CRP risk factors should be less than .7! The patient was then placed on fish oil supplements, vitamin C, a high

Longevity Herbs continued from page 5...

strengthen non-specific host resistance, which may be the key to longevity. Typical Americans rely on a pharmaceutical based medical culture that does not embrace the use of natural herbal remedies. Worldwide, however, is an entirely different case and I would like to share three amazing longevity herbs to consider when searching for the fountain of youth!



Bilberry (*Vaccinium Myrtillus*) is a European blueberry, and according to Dr. Chopra, it contains anthocyanidin, a compound that possesses powerful antioxidant properties. Historically, bilberry fruit was used to treat diarrhea and scurvy. Today it is widely used for menstrual cramps, eye deficiencies, varicose veins, venous insufficiency, and general circulation issues. Research supports claims of its powerful antioxidant and anti-inflammatory properties, and its ability to reduce vascular wall permeability and stabilize collagen. Bilberry is an antioxidant and benefits one's circulatory system, heart, brain, eyes and generates overall good health. Bilberry fruits' anthocyanosides are thought to be responsible for increasing capillary flexibility and an increase in blood flow. Several clinical studies have also been conducted testing the stimulation of microcirculation in the eyes' retina. Research shows the extract can enlarge vision range and increase image sharpness, enhance focus, ease eyestrain and nearsightedness, as well as improve blurry vision. Bilberry extract has also been shown to strengthen coronary arteries, assist in the prevention of atherosclerosis and increase vein flow. The University of Maryland Medical Center studied and reported bilberry may improve circulation, strengthen arteries, blood vessels, and control LDL cholesterol levels. According to Vanrenen (2000), the German Commission E recognized bilberry's astringent properties, but has not approved it for vision problems and suggests a daily dosage of the standardized extract at 25% anthocyanosides.

Echinacea (*E. Purpurea*, *E. Pallida*, and *E. Angustifolia*) is an original Native American plant known as “snakeroot” or purple coneflower, prized by the Sioux nation and used to treat wounds and snake bites. Dr. Gerhard Madaus, a German researcher, discovered this American miracle herb, imported seeds to Europe, and began the first modern scientific research on the immune-stimulating properties of echinacea. Decades of research prove echinacea's value in building and aiding the immune system. Studies determined echinacea's ability to stimulate white blood cells and trigger regeneration of cellular connective tissue and the epidermis. The infection fighting properties stem from the plants ability to neutralize dangerous enzymes involved with infection. Echinacea actions are antimicrobial, anti-inflammatory, vulnerary, alterative, immunomodulator and anti-catarrhal. Constituents from the root demonstrate activity against staphylococcus aureus and streptococcus, finding the caffeic acid derivative echinacoside. Approximately 6 mg were reported as an equivalent to one unit of penicillin and the tincture was deemed effective in halting recurring *Candida albicans* infection. Echinacoside glycosides appear as the primary “antibiotics” and are thought to work synergistically with the other substances in the whole plant. Its polysaccharides are the best immune stimulator and are antiviral.



Milk thistle (*Silybum marianum*) is a plant from the Aster family, and its seed extract is known for its ability to maintain liver health. Milk thistle has been studied by The American Cancer Society, reporting its effectiveness in treatment of liver disease developed from toxins and certain cancers. Its actions are galactagogue, demulcent, hepatic, cholagogue, and antihepatotoxic. There is a body of clinical research revealing its ability to reverse liver damage and offer

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quality multi-vitamin and instructions to avoid soda, to consume protein in the morning and eat more vegetables and plant fats.

Within less than a month the co-learner returned for a follow-up appointment and stated she was doing much better. She told Riordan Clinic staff that her joint inflammation had decreased and that she was having less pain. Another CRP was run, and this time her level was down to 19.5—a remarkable decrease in less than 30 days. With the doctor's help, this co-learner was able to make minor changes to her diet and increase nutrients that she was deficient in and continue on her supplement plan. When the co-learner returned over the summer for a routine appointment, her CRP level had gone down to an amazing 2.5! Her energy level had increased and she found she was rarely ill. By making smarter lifestyle choices now, this patient has improved her health and will help prevent further risk for disease.

This is an amazing example of the care our co-learners receive at the Riordan Clinic. Furthermore, many studies have documented the link between a healthy diet and lifestyle in the prevention of age-related or chronic diseases. It is never too late to begin making smart lifestyle changes within your life to prevent disease and hinder the signs of aging. Don't wait! Make your appointment now with one of our clinic doctors and start your journey to a healthier lifestyle... (and maybe even a few less grey hairs in the process!)

This patient's story is a great example of the exceptional care you will receive at the Riordan Clinic. To find out more or to make an appointment, call **316-682-3100** to start your journey to a healthier you.

protection from toxic chemical bodies from alcohol and drug ingestion, some forms of hepatitis A and C, cirrhosis and fatty degeneration of the liver. Schechter notes that stress of toxins from pharmaceuticals, alcohol, chemical pollutants, tobacco, radiation and drugs all have cumulative negative side effects that need to be cleansed from the body. Over 120 scientific studies show milk thistle extract regenerates, strengthens, and regulates the liver function. Free radicals attack the liver and fatty tissue in the liver and the antioxidants delivered in milk thistle stimulate the body to produce superoxide dismutase, one of the two primary antioxidants the body naturally manufactures.

Please consult your primary care physician regarding your interest in exploring any alternative health therapy and may you enjoy your longevity.

SOURCES:

livestrong.com/article/39852 & www.allnatural.com & www.nccam.nih.gov/health/bilberry

Know Your Nutrients: Vitamin E and Aging

by Amanda Hawkinson



To date, nothing can turn back time, as aging adults well know, but vitamin E may at least slow it down.

Researchers at the University of Florida found that men and women who took vitamin E supplements (accompanied with exercise) became healthier and significantly decreased their levels of a blood marker that signals the destruction of certain cells by unstable molecular fragments called free radicals. This process is known as free radical-induced oxidative stress and it contributes to aging and disease.

Oxidation caused by free radicals damages cells, tissues and organs, much as the process causes a car to rust or an apple to brown. Excessive exposure to ultraviolet radiation, smoke and environmental pollutants can increase production of free radicals.

Researchers elsewhere have shown that free radicals play a role in the development of cancer, obstructed arteries, Alzheimer's disease and some 200 other diseases, as well as

in the aging process itself. However, studies also have revealed that antioxidants, such as beta-carotene and vitamins C and E, help protect the body.

When we are young our body creates antioxidants to battle the free radicals that the body produces frequently. Yet, as we age (usually in the late 30s to early 40s) we begin to produce more free radicals and fewer antioxidants.

Vitamin E is a powerful antioxidant and is necessary for structural and functional maintenance of skeletal, cardiac, and smooth muscle. It also assists in the formation of red blood cells and helps to maintain stores of vitamins A and K, iron, and selenium. It may have a positive effect on immune health, protect against the oxidative damage that can lead to heart disease, have preventive effects against cancer, help relieve symptoms of Alzheimer's disease, and may help prevent some diabetes-related damage, particularly to the eyes. Good sources of vitamin E include spinach, almonds and avocados. However, most people—old and young—are vitamin E deficient, as it is difficult to get enough of the antioxidant from diet alone. For that reason, as we age we become more susceptible to the physiologic and physical effects of aging.



Research conducted over a two-year period, studied 59 healthy men and women ages 60 to 75 that live in a community retirement facility in North Central Florida and were not regularly exercising. Half were randomly assigned to a group that exercised routinely and half to a control group that did not. Participants in each group were then randomly assigned to take daily vitamin E supplements or placebos.

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All study participants maintained their usual eating habits. Those in the vitamin E groups were supplied with and asked to take 800 international units of vitamin E, well over the U.S. recommended daily allowance of 30 international units. However, no specific guidelines exist for older Americans, and previous research has shown that exercise may increase the production of free radicals and the requirements for

dietary antioxidants such as vitamin E. Both exercise groups completed 16 weeks of supervised endurance exercise on treadmill, cycle and stair-climber machines for 60 minutes twice a week, with intensity and duration increasing in the fourth and fifth weeks of the regimen. The sedentary group did not change their usual daily activities or begin an exercise routine.

Results showed that, on average, a key by-product of free radical damage in the two groups taking vitamin E was cut in half. In addition, those in the sedentary group taking vitamin E did show a significant reduction in their systolic blood pressure, which dropped an average of almost seven points. The group who exercised and took vitamin E had an average drop of about 15 points in their systolic blood pressure and about 5 points in their diastolic blood pressure, as well as increased weight loss and significant improvement in resting oxygen uptake, a measure of cardiovascular fitness and endurance. The sedentary group not taking vitamin E showed no significant changes.

Any form of exercise will work, from mowing the lawn to dancing to vacuuming for 30 minutes. The only necessity is that it gets your heart rate up. All adults should take vitamin E because of its clear benefits to aging and systolic blood pressure.

Results from the UF study and from others around the country indicate that consuming antioxidants and getting the right amount of exercise can help slow the aging process and protect against destructive free radicals.

Source: www.medicalnewstoday.com and healthday.com

Lunch & Lecture Series 2012

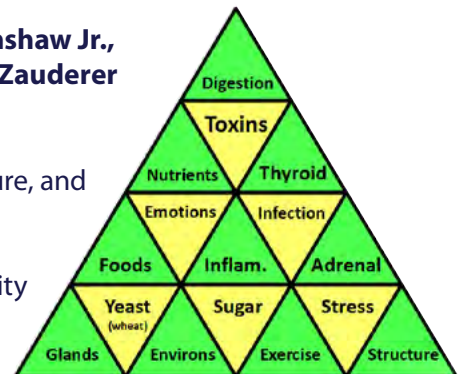
16 Correctable Causes of Chronic Illness

Presenter: Dr. Ron Hunninghake, Dr. Charles Hinshaw Jr., Dr. Jennifer Kaumeyer, and Dr. Anne Zauderer

Date: Thursday, September 13, 2012

Time: 12:00 p.m. to 1:00 p.m. AND 6 p.m. to 7 p.m.

Cost: FREE—Lunch is included during 12 p.m. lecture, and snacks during the 6 p.m. lecture



Twice a year the Riordan Clinic sponsors a community lecture and an opportunity for non-patients to test their key nutrient levels at a deep discount during our semi-annual Check Your Health event. This year

Dr. Ron Hunninghake, Chief Medical Officer, will discuss the Riordan triangle diagram of Correctable Causes of Chronic Illness. By improving your nutrient status, you address one of the more important causes of chronic illness. Dr. Ron will present an overview of this innovative approach to chronic illness—especially pertinent to anyone who continues to suffer with chronic symptoms which may have been diagnosed, but for which no therapy has yet brought relief.

All of our Riordan Clinic doctors will be present and available for questions at the end of the lecture.

If you are unable to attend in person check out this lecture on our **live webcast**.

Reservations are required. Call **316-927-4723** or email us at reservations@riordanclinic.org



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