



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.
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Going Global: Stimulating a Worldwide Epidemic of Health

by Ron Hunninghake, M.D.

“How in the world do you stimulate an epidemic of health?”

Twenty-four years ago, I entered the gates on Hillside and drove up, wide-eyed, to the unique domes and pyramid, then known as “The Olive W. Garvey Center for the Improvement of Human Functioning, Inc.” Two evenings earlier, I had bumped into Dr. Hugh Riordan while attending an organic gardening lecture being held at a small college in Salina, Kansas where I was practicing as a Family Physician. I was introduced to him as a doctor who had been instrumental in starting a successful practice-based wellness program in Salina. Dr. Riordan told me that he also was deeply interested in wellness...but on a much bigger scale. Little did I know just how BIG that scale actually was!



Our discussion led me to the Riordan discuss over lunch health, nutrition, I was intrigued and that luncheon for out from that hour-realized that my old care” had just been a comprehensive picture care system where patients quality of life “results” took precedence over standard of care “process;” and where the correction of real, underlying causes of sustained illness would replace the mere pharmaceutical palliation of symptoms.

Dr. Riordan to invite Clinic in Wichita to our mutual interests in and optimal wellness. would not have missed anything! As I walked long meeting, I suddenly global vision of “health shattered. In its place was of a more evolved health functioned as “co-learners;” where

In short, I had just had my first serious lesson in “stimulating an epidemic of health” via the “Riordan Approach!” Dr. Riordan expressed that he was ready to take on the world.

FIFTEEN INTERNATIONAL CONFERENCES ON HUMAN FUNCTIONING

Dr. Riordan’s global perspective was developed while sponsoring a series of international conferences that focused on innovative ways of improving how human beings function. Holistic in his perspective, he knew that many of the problems of mankind had their genesis in what he viewed as “complacency with mediocrity.” He believed that with “extra effort” and a “focus on results,” the human condition could be improved. He often quoted, “if we all worked on the assumption that what is accepted as true really is true, there would be little hope of advance.” Orville Wright said that ... probably when naysayers told him man was not meant to fly.



Letter from the Editor:

by Amanda Hawkinson

We have all heard the phrase “going global,” but how does it pertain to the Riordan Clinic? For over 35 years, the Riordan Clinic has strived to create a global shift in the medical world to focus on health promotion rather than sickness care. Our innovative therapies and protocols are utilized globally, and yearly we are visited by dozens of individuals from all over the world who seek the health, hope, and healing that we offer.

This issue of the *Health Hunters Newsletter* is dedicated to the Riordan Clinic’s overall global appeal. In Dr. Ron Hunninghake’s article “Going Global: Stimulating a Worldwide Epidemic of Health,” learn not only about our international conferences and IVC Symposium but also how doctors and patients from around the globe come to the Riordan Clinic to seek training and/or medical attention. Plus, discover the global influence of our research by reading “The Worldwide Impact of the Riordan Clinic Research Institute” by Dr. Joseph Casciari.

We also practice medical therapies that have been developed by researchers throughout the world, like the HCG Weight-Loss Intervention and Auricular Therapy. Find out more about Auricular Therapy at our July 14th Lunch & Lecture titled “Lend Me Your Ear—Treating the Body with Auricular Therapy.” Other things to look forward to in this edition are learning more about fish oils and why Essential Fatty Acids (EFAs) are indeed essential and how you can take advantage of a special Riordan Clinic Laboratory test that will examine your EFA levels so that you can live life to your fullest potential.

The Riordan Clinic continues to focus on a new paradigm of health care.

If you or someone you know would like to learn more about the Riordan Clinic, please call us at 316-682-3100 to schedule an appointment. We want to help!

As always, thank you for reading and for your continued support.

Amanda Hawkinson
Editor

newseditor@riordanclinic.org

Going Global: Stimulating a Worldwide Epidemic of Health continued from page 1...

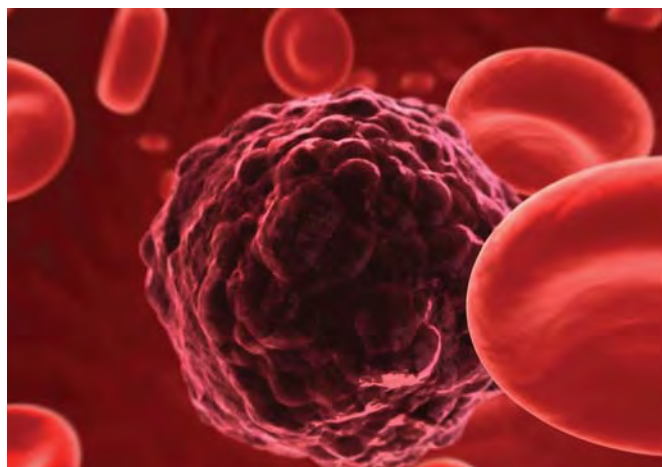
Speakers were invited from all over the world to these conferences. Although many countries were represented, many visitors traveled from Japan, Britain, Australia, Switzerland, China, and Russia. At the conferences, they shared their knowledge while commingling their ideas and becoming friends. Once they returned to their home countries, they were fully equipped to spread the good news of better ways to improve health. Word-of-mouth is the best form of advertising. Because of their experiences, they sent their friends and family members back to Dr. Riordan’s clinic for treatment (within this new paradigm of care). Co-learners from over 50 countries have journeyed to Wichita for more than 35 years to be tested and treated using methodologies gleaned from this wonderful series of international conferences.

REC�AC’S GLOBAL APPEAL

In 1990, Dr. Riordan took on the challenge of cancer and named this effort REC�AC because the word is cancer spelled backwards.

The name represents his research efforts to reverse the awful worldwide trends in cancer-related deaths, the only modern disease that has shown little response to modern treatment methods.

Building on the work of Drs. Linus Pauling and Ewan Cameron, the REC�AC research team was able to demonstrate



that intravenous vitamin C (IVC) has selective cytotoxicity to cancer cells, inhibits growth of new blood vessels into existing tumors (anti-angiogenesis), and is biologically effective at improving the cancer patient’s quality of life (more energy, better appetite, less pain, enhanced sense of well-being).

As research efforts of Riordan Clinic scientists and National Institutes of Health researchers continued to churn out dozens of peer-reviewed publications that supported and advanced REC�AC’s findings on IVC, we wondered who would present these findings to medical professionals and the general public. By becoming the Chief Medical Officer of the Riordan Clinic, I graciously accepted that task.

My first presentation was at the Canadian conference, Orthomolecular Medicine Today, held in Vancouver. It was entitled, “Monitoring IVC Effectiveness in Cancer Patients.” In the audience was a Japanese cardiologist-turned-nutritionist, Dr. Atsuo Yanagisawa. Upon his request, I presented a more general discussion of the role of IVC in the care and prevention of cancer at an upcoming Tokyo conference that he sponsored. Our meeting and that presentation led to a total of three additional trips to Tokyo with multiple presentations on the value of IVC and the founding of the International College of IV Nutrition, on which I serve as a board member. Continuing this tradition, I will be speaking on IVC and Cancer in the Netherlands later this year.

THE RIORDAN IVC AND CANCER SYMPOSIUM

The growing worldwide interest in the Riordan IVC Protocol, published under the title, “Intravenous Ascorbate (IVC) as a Chemotherapeutic and Biological Response Modifier” led us to the decision to sponsor a symposium on this topic at the Riordan Clinic in 2009. With over 100 attendees representing eight countries, the first

Going Global: Stimulating a Worldwide Epidemic of Health continues on page 3...

Patient Profile

by Carey West

In July of 2005, a young lady from Guayaquil, Ecuador, contacted the Riordan Clinic. She was very interested in coming to the clinic to seek medical attention but was going to have legal difficulties traveling to the U.S.

In September of 2005, a letter was drafted by the Riordan Clinic staff to the United States Consulate General in Guayaquil, Ecuador, on the patient's behalf, pleading for her to be issued a visa to come to the United States and to be allowed to stay in the U.S. for at least two months or more, if needed. This would allow her time to visit the Riordan Clinic and complete therapies, lab work, and follow-up visits that would improve her condition.

Permission was granted, and she first visited the clinic in October of 2005. At the time, she was having problems with insomnia, depression, social phobias, anxiety, fears, hallucinations, lack of concentration and several other issues. She had seen doctors in Ecuador and was trying many different kinds of medications without any benefit. She was very sensitive to most medications and experienced panic attacks as well as weight gain as side effects.

Laboratory tests were ordered by our clinic physicians. The results indicated that she had a fungus problem, including Candida, multiple food sensitivities, as well as several vitamin and mineral levels that were out of balance. The patient remained in Wichita for 4 ½ months and received vitamin C infusions, anti-fungal supplements, and regular check-ups.

In a letter received from the patient in February of 2007, she reported that her depression was almost gone, panic attacks were completely gone, and her unexplained fear and social phobias had completely disappeared.

The patient has visited the Riordan Clinic three times since her initial visit in 2005, and most recently, was seen by our physicians via Skype. She continues her anti-fungal supplement regimen. Her Candida levels are now within the normal range, but initially, they were three times greater than normal. To ensure that her Candida levels remain within the normal range, an anti-Candida antibodies lab test is performed each time that she visits. She is very happy and continues to see her overall health improve.

If you have chronic health issues, make an appointment today by calling 316-682-3100. The health, hope and healing we provide can make a positive impact in your life, just as it did for this patient.

Going Global: Stimulating a Worldwide Epidemic of Health continued from page 2...

Riordan IVC and Cancer Symposium was a huge success, spawning a second such symposium in 2010. Streaming videos of each year's speakers can be viewed at www.riordanclinic.org under the "Education" heading.

Because of this symposium, and the many efforts of like-minded, nutritionally-oriented doctors all over the globe, documented estimates of IVC usage run around one million infusions a year in the U.S. and over a half a million annually in Japan.

THE GLOBAL REACH OF THE RIORDAN CLINIC



In past years, doctors from Korea, Japan, Canada, Mexico, Britain, Switzerland, Australia, New Zealand, Argentina, and many other countries have ventured to the Riordan Clinic for week-long educational experiences. They have been interested not only in IVC therapy but in the use of the laboratory to discern underlying nutritional and functional causes of chronic illness. Our on-site

doctors have served as educational mentors to many aspiring nutritional doctors in the field of laboratory science as it applies to nutrition.

I personally serve on three international boards that are dedicated to the scientific advancement of nutritional therapies that mirror the values of the Riordan Approach:

1. International Schizophrenia Foundation in Toronto, Canada (founded by Dr. Abram Hoffer, a pioneer in Orthomolecular Psychiatry)
2. Pure North S'energy Foundation in Calgary, Canada (founded by Mr. Allan Markin, in an effort to provide quality nutrition-based wellness care to over 2200 of his employees, and eventually to all citizens of Canada)
3. International Society of Integrative Medicine in Tokyo, Japan

A NEW WORLDWIDE PARADIGM OF CARE



Dr. Riordan's frequently voiced insight, "We do not have a health care system, we have a sickness care system," implicitly predicted the advent of a new paradigm of true health care.

Healthy Medicine is a kind of medical care that focuses on health. One would think that this insight should be ridiculously obvious. But the history of medicine in modern times has proven this not to be true. Sickness care in the form of pharmaceuticals and acute care interventions has dominated the profession of medicine for over a century.

In the U.S., the huge inflationary costs of sickness care medicine, and its failure to stem the tide of obesity, cancer, and other degenerative illnesses, have caused the general public to take a more serious look at nutritionally-oriented medical care systems such as the system offered by the Riordan Clinic.

Call it what you will, "Lifestyle Medicine," "Healthy Medicine," "Integrative Medicine,"—these are all terms that describe a fundamental and global shift in thinking about how we promote better health in human beings.

Although history may not adequately reflect the "extra efforts" of Dr. Hugh Riordan and all the Riordan Clinic staff members for more than 35 years, those of us who have committed to and participated in its growth will forever know in our hearts that we helped to seed a powerful new idea whose time had come: "Focus on creating an epidemic of Health!"

HCG Weight-Loss Intervention— The Success Continues!

Since introducing the HCG Weight-Loss Intervention program in January, participants have lost over 1700 pounds! Here is one success story:

We were graciously visited by a patient from Montreal, Canada, who stood at 5' 5" tall and weighed in at 179.3 lbs. She longed to return to her wedding day weight. Even though she had been a patient at the Riordan Clinic for many years, it had been some time since she had visited the clinic. She contacted us with interest in our HCG Weight-Loss program and her curiosity led her to begin the program. Because of her occupation in the field of post-natal care, she excitedly proclaimed, "I get the whole concept (of HCG), and it's brilliant."

In the first week, she was ecstatic over the loss of 10 pounds and dropped from a size 14 to size 12! Within a month she lost a total of 18 pounds, her triglyceride and cholesterol levels dropped by half and she lost 5 inches from her waistline. By the time she completed the 40-day program, she lost a total of 26 pounds, only 3.3 pounds from her goal weight of 150 pounds. Through the maintenance phase, she continued to eat a great deal of protein and vegetables and drink large quantities of water, which led to more weight loss.

By the end of her 85-day program, she reached her goal of 150 pounds and has maintained her current weight for the last 2 months. She reports having more energy, better bladder function, and she has even stopped taking some of her medications. She is very pleased with the HCG Weight-Loss Intervention program. Her weight is at a healthy level that can be easily maintained for the rest of her life.

This patient is a great example of the weight-loss success that awaits you with the Riordan Clinic HCG Weight-Loss Intervention. Go to www.riordanclinic.org for additional information. If you are ready to improve your health and well-being, call 316-682-3100 to get started today!

ATTENTION: MEDICAL PROFESSIONALS

SAVE THE DATE

for our next biannual



IVC and Cancer Symposium OCTOBER 5 and 6, 2012

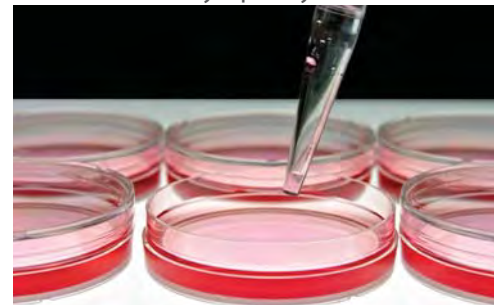
- Confer with Intravenous Vitamin C practitioners from around the world.
- Presentations on cutting-edge research and topics in IV Vitamin C Cancer treatment.
- Located on the Riordan Clinic's beautiful 90 acre campus.
- 2010 Conference SOLD OUT. Watch for early registration coming next spring.

The Worldwide Impact of the Riordan Clinic Research Institute

by Joseph Casciari

The Riordan Clinic Research Institute may not be a household name, but our research has received notice worldwide. Our efforts to "go global" have included sponsoring international conferences on alternative therapies and publishing our own work in national and international peer-review journals. Two research topics in particular illustrate how our small group of unheralded scientists in 'flyover country' can make an impact: our discovery that **stem cells can be obtained from menstrual blood** and our development of a protocol for using **intravenous vitamin C in the treatment of cancer**.

Our stem cell research was motivated by our interest in how normal cells in the body respond to pathology. We conducted years of research on immunotherapy, developing a method to 'train' dendritic cells to present antigen information to lymphocytes. We also worked extensively to learn more about the wound-healing process and how natural products could stimulate a wound-healing response. This led us to research stem cells. Stem cells are 'immature' human cells that have not yet committed to being of a certain type. The theory is that stem cells could be converted into another cell type, such as nerve cells, and be used to replace dying cells in degenerative diseases such as Alzheimer's. The problem in moving this from the idea stage to practice has been in obtaining a reliable and non-controversial stem cell source. This is where we made our contribution.



When our team, led by Dr. Xiao Long Meng, developed a methodology to isolate stem cells from menstrual blood, and then "differentiated" these stem cells into neurons, brain cells, muscle, fat cells, bone, cartilage or liver cells, our results generated considerable interest. *The Worldwide Impact of the Riordan Clinic Research Institute continues on page 5...*

Dr. Ron Hunninghake Named 2011 Orthomolecular Doctor of the Year



Dr. Ron Hunninghake of the Riordan Clinic was named The 2011 Orthomolecular Doctor of the Year by the International Society

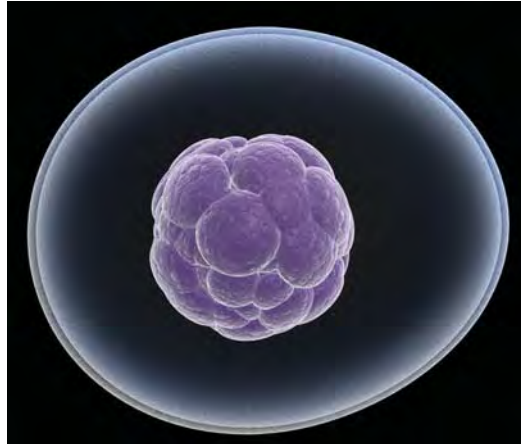
for Orthomolecular Medicine on April 29, 2011. Inaugurated in 1998, the Orthomolecular Doctor of the Year distinction is awarded to an outstanding contributor in the field of Orthomolecular Medicine. In 2002, the Clinic's founder, Dr. Hugh Riordan, and in 2008, Clinic research scientist, Dr. James Jackson, also received this prestigious award. Dr. Hunninghake's award reads "For vision, courage and leadership in keeping the Riordan Clinic the world's center for Orthomolecular Medicine."

Dr. Hunninghake is the Chief Medical Officer at the Riordan Clinic in Wichita, KS. He is the author of *User's Guide to Inflammation, Arthritis, and Aging* and the co-author of *Stop Pre-Diabetes Now*. Dr. Ron, as patients at the Clinic fondly refer to him, began his career as a small town doc in Minneapolis, Kansas, where he first started teaching clinic-based wellness. In 1989, seeking even greater involvement in helping patients learn innovative ways to rebuild and maintain their health, he joined the Riordan Clinic as its Medical Director.

In addition to his full-time practice at the Clinic, Dr. Ron has lectured in Japan and Canada on The Riordan IVC Protocol for Cancer. He is scheduled to give a lecture in the Netherlands on the same topic. He currently serves on the board for the International Schizophrenia Foundation in Toronto and has been a regular presenter at the Orthomolecular Medicine Today Conference that has been held in Canada each year for the past 39 years.

Congratulations, Dr. Ron!

Our peer-reviewed manuscript detailing this work, published in the *Journal of Translational Medicine*, was the journal's most accessed article for the month it was first available.



Our results were reported in national outlets (CNN, CBS, to name two), and our article won BioMed Central's "Research Article of the Year in Medicine" award for 2007. More importantly, research into menstrual-blood derived stem cells (MenCHs, as they are now referred to in the field) is taking off worldwide. The company MediStem, headed by Dr. Neil Riordan, is applying this and other stem cell technology in treatment centers across Central America. A company in India is conducting MenCHs research and allowing

women in that country to bank their menstrual tissue for future stem cell derivation. This is also going on in Florida and in Brazil, among other places.

Before we got into immunotherapy and stem cell research, one of our focal points was the use of intravenously administered vitamin C to treat cancer.

In 1989, Dr. Hugh Riordan founded the RECNAC project in an effort to 'reverse' cancer (look at the word 'RECNAC' in the mirror). We saw vitamin C as a neglected part of the potential solution. While Linus Pauling had proposed vitamin C as a cancer treatment in the 1970's, Mayo Clinic studies found no benefit. It was thus considered 'settled science' that vitamin C was ineffective. There is now, however, new interest in using vitamin C intravenously as a cancer treatment or as a complement to standard treatments. We have had a lot to do with generating that interest. Our scientists, led by Dr. Neil Riordan and Dr. Joe Casciari, laid the groundwork to show that vitamin C could selectively kill cancer cells at concentrations that were safely achievable in patients, provided the vitamin was administered intravenously. Further research in our group, particularly by Dr. Nina Mikirova, showed that vitamin C at high concentrations could inhibit blood vessel growth in tumors. We published these results in peer-reviewed journals, including the *British Journal of Cancer* and the *Puerto Rico Health Sciences Journal*, and have since sponsored animal and preliminary clinical studies to confirm the treatment's potential.

A big part of our efforts with vitamin C has been in communicating our results to others and in educating scientists and clinicians concerning its use and potential. A major breakthrough for us was when Dr. Hugh Riordan was able to show our results to Dr. Mark Levine of the NIH



(National Institutes of Health). Dr. Levine became interested and began conducting research of his own. His publications in the *Proceedings of the National Academy of Science* and the *Canadian Medical Association Journal* increased worldwide interest tremendously. Clinical trials are now underway in Kansas and in other places, and intravenous vitamin C is being used in the United Kingdom, Japan, China, and in other clinics throughout the world. In an effort to

bring scientists and practitioners together on how best to use this nutrient intravenously, we began holding The Intravenous Vitamin C and Cancer Symposium, starting in 2009. We have featured speakers from the US, Canada, Puerto Rico, Japan, and China. The Riordan Clinic has made the Riordan Protocol, our recommended method for giving intravenous vitamin C, available to the world via the internet.

Our research and education efforts continue. We are conducting experiments on stem cells of various types and recently completed analysis of a weight loss program based on human chorionic gonadotropin (HCG). We are currently analyzing the benefits of chelation therapy (including its effect on stem cells) and examining the use of diagnostic techniques based on serum fluorescence and endothelial micro-particles. We are anxious to see these efforts and results make their way around the world.

VITAMIN SPECIAL

15% off all Fish Oil Supplements

INCLUDING:



ProEPA
REGULAR PRICE: \$25.18
SALE PRICE: \$21.40



ProEFA Xtra
REGULAR PRICE: \$60.74
SALE PRICE: \$51.63



ProOmega Liquid
REGULAR PRICE: \$41.95
SALE PRICE: \$35.66



Cod Liver Oil Liquid
REGULAR PRICE: \$23.31
SALE PRICE: \$19.81



Arctic Cod Liver Oil Softgels
REGULAR PRICE: \$20.74
SALE PRICE: \$17.63



DHA Junior
REGULAR PRICE \$20.16
SALE PRICE: \$17.14



ProOmega Junior
REGULAR PRICE: \$24.94
SALE PRICE: \$21.20



ProDHA
REGULAR PRICE \$26.10
SALE PRICE: \$22.19

THESE OFFERS EXPIRE 7/31/2011

Know Your Nutrients —Omega-3 Fatty Acids

by Tiffany Hurley

Omega -3 fatty acids are considered essential nutrients for our health. We need omega-3 fatty acids for numerous normal body functions, and since our bodies cannot make omega-3 fats, we must get them through our diet. If you do not get these essential nutrients, you will experience symptoms, such as fatigue, poor memory, dry skin, heart problems, mood swings or depression, and poor circulation.

There are many types of omega-3 fatty acids, most notably eicosapentaenoic acid (EPA), docosahexaenoic acid (DHA), and alpha-linolenic acid (ALA). EPA and DHA are found primarily in certain fatty fish such as salmon, mackerel, lake trout, sardines, tuna, and herring, as well as in game meat and grass-fed beef. ALA is found in flaxseeds and flaxseed oil, canola (rapeseed) oil, olive oil, soybeans and soybean oil, walnuts and walnut oil among others. ALA, which is partially converted to EPA and DHA by the body, is also found in some green vegetables such as Brussels sprouts, kale, spinach, and salad greens. If an individual is experiencing nutrient deficiencies and/or is insulin resistant/diabetic, he or she will have a very difficult time making EPA and DHA from ALA. This is why foods that supply direct sources of EPA and DHA are the best dietary and supplemental option.

Omega-3 fatty acids are associated with many health benefits. They play a crucial role in brain function as well as normal growth and development. Research shows strong evidence that omega-3s play an important role in reducing inflammation throughout the body, and they can boost heart health and lower triglycerides. New studies are identifying potential benefits



for a wide range of conditions including depression, cancer, inflammatory bowel disease, and other autoimmune diseases such as lupus and rheumatoid arthritis. Clinical evidence is strongest for heart disease and problems that contribute to heart disease, but some studies have suggested that omega-3 fatty acids may also be used for high blood pressure, diabetes, bipolar disorder, schizophrenia, ADHD, asthma, macular degeneration, prenatal health, kidney problems, Alzheimer's disease and others.

Though the American Heart Association recommends eating 3 oz. of fish, particularly fatty fish, at least 2 times a week, it is difficult for many Americans to get an adequate dose of omega-3s from food alone. Both EPA and DHA can be taken in the form of fish oil capsules or liquid supplements. A few things to think about when purchasing fish oil supplements:

- **Quality**—purity, freshness and potency (dosage per capsule or serving)—is critical.
- It is important to buy **purified or molecularly-distilled oils**, assuring that the fish oil is free of toxins. Some manufacturers have their products tested by a 3rd party for this assurance.
- **Fish oil from Norway** is considered a top choice because of its purity and high content of omega-3 DHA. The oil is extracted from fish from deep cold waters in Norway, where there is minimal pollution and plenty of plankton, the actual source of omega-3 fatty acids.
- **Don't buy in bulk.** Fish oil can become rancid and can have detrimental effects on health—another reason why it is important to buy a quality product.

Varying opinions and recommendations regarding the proper dosage of fish oil makes it essential that medical advice is sought before determining and beginning any dosage. The amount of fish oil a person should take depends heavily on the reasoning behind their consumption of fish oil. Because of the potential for side effects and interactions with medications, dietary supplements should be discussed with your health care provider.

Fresh Organic Produce Available

Our gardeners have been busy working on the recent harvest of fresh vegetables and herbs. Limited amounts of fresh produce are available each day to the public in the Gift of Health Supplement Store.

For July, we can expect:

- zucchini
- crook-necked squash
- kale
- Swiss chard
- herbs
- radishes



Feel free to call ahead, at **682-3100**, to check the selection we have for sale each day.

The Riordan Clinic Research Institute: *Chelation Therapy Study Published in the International Journal of Complementary Medicine and Drug Discovery.*

Riordan Clinic scientists Nina Mikirova, Joseph Casciari, Ronald Hunninghake, and Neil Riordan have recently had an article published in *The Journal of Complementary Medicine and Drug Discovery (Spatula DD)*. The article, "EDTA chelation therapy in the treatment of toxic metals exposure," looks at using different chelation protocols to treat the buildup of heavy metals in the body. *The Journal of Complementary Medicine and Drug Discovery* is a peer-reviewed quarterly international scientific medical journal devoted to emerging research in complementary medicine, pharmacy and drug discovery.

The accumulation of heavy metals such as lead, mercury, cadmium and aluminum in the body has been associated with pathologies and causes a wide range of physiological, biochemical and behavioral health problems. Chelation, a method of removing certain heavy metals from the bloodstream, has been used for treatment of toxic metals' exposure for many years. In this current clinical study, the doctors compared different chelation protocols and two forms of EDTA (sodium calcium edetate and sodium edetate) in treatments of toxic metal exposure.



The study analyzed data from over 600 patients with a variety of complaints, though not severe toxic metal exposure, who had been given chelation therapy with sodium (Na) EDTA or calcium (Ca) EDTA. Data showed that each antidote, at intravenous infusions of 3 g per treatment, increased excretion of lead and aluminum two to three times and were equally effective in removing lead from the body, while Ca-EDTA was more effective in aluminum removal. Though the urine level of toxic metals increased after chelation treatment, there were also high rates of excretion of essential metals such as zinc, manganese, iron and calcium. This suggests that clearance of essential metals during chelation needs to be monitored. In the Riordan Clinic protocol, essential metal supplements are included for compensation.

The comparison of the different dosing regimens (3 grams of EDTA with 1 gram of EDTA) demonstrated that the effect of the chelating agent on metal clearance was non-linear,



meaning that a three-fold increase in dosage of the antidote does not cause a three-fold increase in lead excretion. For example, increasing the dose of EDTA from 1 g to 3 g increased the excretion of lead by fifty percent and aluminum by seventy percent.

The data also indicates that lead and aluminum accumulation in the body is most severe when other essential metals are deficient. The analysis demonstrated that deficiencies in essential minerals (zinc, iron and calcium) enhanced the uptake of toxic metals. While there is variability from patient to patient, the highest concentrations of lead and aluminum were observed in patients with reduced levels of essential metals in the body. Based on their data, the researchers proposed that low dosages of chelating agents might be advantageous for patients with no occupational exposure to toxic metals.

To read this entire article and others published by Riordan Clinic researchers, visit www.riordanclinic.org

Laboratory Special

Essential Fatty Acids:

Essential fatty acids, or EFAs, are fatty acids that are required for the health of humans and other animals but that must be ingested because the body cannot synthesize them. The term “essential fatty acid” refers to fatty acids required for biological processes, and not those that act simply as fuel.

Omega-3 fatty acids can be found in certain cold water fish, fish oils, flax oil, walnuts, and dark-green leafy vegetables, while omega-6 fatty acids are found in vegetable oils, seeds and nuts, and the oils extracted from them. Unfortunately, there are few sources of omega-3 fatty acids in the modern American diet, but there is an overabundance of the omega-6 fatty acids, which are found in many of our processed foods and fast foods. This has led to a dietary imbalance that could explain the rise of many diseases, several of which are referenced in the “Know Your Nutrients” article in this month’s newsletter.

This month, our laboratory is offering you a chance to check the levels of your Essential Fatty Acids with a specially priced EFA-RBC test. If you would like to know more about the level of essential fatty acids in your body, call 316-684-7784 to schedule an EFA test today.

SPECIAL

Regular price: \$208

special
\$145

(Includes a 30% discount)

Lunch and Lecture Series 2011

Lend Me Your Ear—Treating the Body with Auricular Therapy

Speaker: Dr. Ron Hunninghake

Thursday, July 14, 2011

12:00 p.m. to 1:00 p.m.

Cost: \$15—Lunch is included.

Got pain? Trying to lose weight? Have the hiccups? Auricular Therapy, a form of acupressure or acupuncture, provides a scientifically verified means of identifying areas of pain, muscular skeletal disorders and a broad range of medical conditions in the body by observing and mapping the ear. The specific locations that are “mapped” then can be used clinically to relieve pain and pathology in the body through the use of electrical nerve stimulation or by the placement of needles in the appropriate areas. This alternative medicine can also be effective in the struggle to lose weight, in that it can reduce food cravings, control appetite and help strengthen will power.



Dr. Ron Hunninghake



Auricular Therapy is based upon the work pioneered by Dr. Paul Nogier in France. The Clinic’s founder, Dr. Hugh Riordan, learned the technique of auricular diagnoses and treatment from Dr. Nogier himself, 25 years ago. Passed on to Dr. Hunninghake, this therapy is one of many unique therapies offered at the Riordan Clinic. Dr. Hunninghake will discuss Auricular Therapy, its background, the technique used at the clinic, and the medical conditions that can be eased with this treatment. There will also be a live demonstration by the Clinic’s Auriculotherapy Technician, Andrea Rogers.

Don't miss this informative lecture! Join us and learn more about this unique treatment.

For reservations: call 316-927-4723 or email us at reservations@riordanclinic.org

Airing in **November** and **December 2011** on ...



If you are flying Delta Air Lines during November or December, be sure to listen to Dr. Ron Hunninghake’s interview during “The Innovators” segment on The Executive Report Talk Radio Business Channel.

We at the Clinic are excited about the opportunity to reach so many travelers during that busy time of year and spread the message of the health, hope, and healing that awaits everyone who comes to see us.

The Nutrition Reporter™

© Jack Challem 2011



The independent newsletter that reports vitamin, mineral, and food therapies

Use B-Complex Vitamins and DHA to Keep Your Brain Sharp as You Age

If you want to keep your marbles as you grow older, it may be worthwhile focusing on two nutrients: B-complex vitamins and docosahexaenoic acid (DHA), one of the omega-3 fats found in fish oils. Three recent studies have found that these nutrients play major roles in keeping the brain sharp.

In the first study, A. David Smith, PhD, of Oxford University, England, and his colleagues analyzed data from 168 men and women they treated with either B-vitamins or placebos. The subjects' brain changes were also tracked with MRIs (magnetic resonance images) of the brain.

The supplements consisted of 800 mcg of folic acid, 500 mcg of vitamin B12, and 20 mg of vitamin B6 daily, which the subjects took for two full years.

The study participants had been diagnosed with mild cognitive impairment and brain atrophy – problems likely to develop into Alzheimer's disease. Smith also measured the subjects' blood levels of homocysteine, one of the markers of B-vitamin deficiency and a risk factor for cardiovascular disease and Alzheimer's.

People taking the B vitamins experienced an average of 30 percent less brain shrinkage, but some of the patients had more than a 50 percent reduction in brain shrinkage, compared with those in the placebo group.

Homocysteine levels also decreased significantly among those taking B vitamins, and the rate of response was related to initial homocysteine levels. People with higher homocysteine levels were more likely to benefit from the B vitamins.

In the second study, Giuseppe Astarita, DSc, of the University of California, Irvine, and his colleagues compared brain and liver levels of DHA in 37 people with Alzheimer's and 14 without the disease. All of the tissues samples were obtained post mortem. People with Alzheimer's had lower levels of DHA, which is a precursor for neuroprotective compounds.

"There were statistically detectable differences in

DHA content in all [brain] regions examined," Astarita wrote.

Astarita determined that the low levels of DHA were related to a defect in the liver's ability to convert tetracosahexaenoic acid (THA) to DHA. THA is the immediate metabolic precursor to DHA, and the conversion requires "D-bifunctional protein." People with Alzheimer's appear to lack the ability to make this particular protein. The finding "led us to hypothesize that the alteration in brain DHA might result from a systemic deficiency in the biosynthesis of this fatty acid," Astarita wrote.

Although Astarita did not explicitly suggest it, his research left open the possibility of using DHA supplements to bypass this defect.

Finally, Matthew F. Muldoon, MD, of the University of Pittsburgh in Pennsylvania and his colleagues measured blood levels of three omega-3 fats – alpha-linolenic acid (ALA), eicosapentaenoic acid (EPA), and DHA – in 280 people between the ages of 35 and 54 years. None of the subjects had been taking omega-3 supplements.

People with higher levels of DHA performed better on tests given to gauge reasoning, mental flexibility, memory, and vocabulary.

Muldoon wrote that the omega-3s are "emerging as important nutrients for optimal brain development and for possible protection against brain senescence...it is plausible that insufficient dietary intake is related to relatively poor cognitive abilities or performance throughout the lifespan..."

References: Smith DA, Smith SM, de Jager CA, et al. Homocysteine-lowering by B vitamins slows the rate of accelerated brain atrophy in mild cognitive impairment: a randomized controlled trial. *PLoS One*, 2010;5:e12244. Astarita G, Jung KM, Berchtold NC, et al. Deficient liver biosynthesis of docosahexaenoic acid correlates with cognitive impairment in Alzheimer's disease. *PLoS One*, 2010;5:e12538. Muldoon MF, Ryan CM, Sheu L, et al. Serum phospholipid docosahexaenoic acid is associated with cognitive functioning during middle adulthood. *Journal of Nutrition*, 2010;140:848-853. □

More research summaries on next page

Perspectives

Resentment vs Gratitude

Resentment rarely affects anyone but the resentful person. It ends up eating away at a person, like an emotional cancer. It is negative mental energy at its worst.

Throughout the year, and not just during Thanksgiving and Christmas (or comparable holidays in other countries), it's important to consider two states of mind that I consider the antithesis of resentment: gratitude and forgiveness. Expressing one or both is good for your health, and they can help you let go of resentment.

Gratitude is really about giving thanks to the people around you. It acknowledges the good things they have contributed to your life. Likewise, forgiveness takes a positive view – helping you let go of the negative feelings you might be harboring toward other people. Expressing gratitude and forgiveness shift our brain biochemistry in positive ways and help reduce feelings of stress and resentment.

They are positive mental energy at its best. Start expressing gratitude and forgiveness now, and continue doing so through next year as well. –*JC*

Dietary Habits Influence Types of Bacteria Found in Our Guts

Our digestive tracts contain hundreds of species of bacteria that aid in the breakdown of food and also make small amounts of some vitamins. These bacteria also help maintain normal immunity and help the body fight a wide range of infections.

Over the past couple of years, research on people and animals has suggested that an imbalanced ratio of some of these bacteria might also be a factor in obesity. For example, thin people tend to have large numbers of bacteria from the Bacteroidetes family, whereas obese people have a greater preponderance of bacteria from the Firmicutes family.

Now, a team of researchers has shown that specific dietary habits seem to favor one family of bacteria over the other with a variety of implications for health.

Paolo Lionetti, MD, of the Meyer Children Hospital in Florence, Italy, and his colleagues compared the fecal bacteria in European children and those from children in a rural African village. Fecal bacteria are representative of those found in the digestive tract.

Lionetti noted that the diet of the rural African children was similar to that of people living thousands of years ago at the very beginnings of

human agriculture. The rural African diet is very high in fiber.

Bacteria from the African and European children differed significantly. Samples from the African children were very high in Bacteroidetes and very low in Firmicutes bacteria – 73 to 12 percent. In contrast, samples from the European children consisted of 51 percent Firmicutes and just 27 percent Bacteroidetes.

The African children also had species of bacteria that were especially efficient at breaking down dietary fiber, so the carbohydrates in them could be used for energy. Lionetti noted that these bacteria probably coevolved with the dietary habits of rural Africans. These fiber-digesting bacteria were not present in the European children.

Lionetti noted that some of the differences in bacteria would protect the African children from infection and inflammation. These children had lower number of *Shigella* and *Escherichia* bacteria (which are potentially infectious), compared with the European children. Lionetti added that “increased gut microbial diversity and reduced quantities of potentially pathogenic strains” of bacteria could improve resistance to infection.

Reference: De Filippo C, Cavalieri D, Di Paola M, et al. Impact of diet in shaping gut microbiota revealed by a comparative study in children from Europe and rural Africa. *Proceedings of the National Academy of Sciences of the USA*, 2010;107:14691-14696. □

High-Glycemic Diets Increase Death Risk from Inflammation

Eating a diet rich in high-glycemic foods – which provoke a rapid increase in blood sugar – appears to boost the risk of death from inflammatory diseases. Those foods include sugars, refined starches (e.g., bread, buns, bagels, and muffins), and potatoes.

Paul Mitchell, MD, PhD, of the University of Sidney, Australia, and his colleagues, tracked 2,735 postmenopausal women and middle-age and elderly men over 13 years. All of the subjects had completed a dietary survey.

During the study, 170 of the participants died from inflammatory diseases. After excluding cardiovascular and cancer-related deaths, Mitchell found that women eating the most high-glycemic foods were almost three times more likely to die from inflammatory diseases. The causes of death were related to infection, respiratory disorders, nervous system diseases, digestive system disorders, and musculoskeletal diseases.

Several other studies have shown that high-

glycemic diets increase levels of C-reactive protein (CRP), a marker and promoter of inflammation.

In the latest study along these lines, Enrique F. Schisterman, PhD, of the National Institutes of Health, Bethesda, Maryland, and his colleagues found that eating whole grains – a relatively low-glycemic food – had a significantly lower risk of elevated CRP levels.

References: Buyken AE, Flood V, Empson M, et al. Carbohydrate nutrition and inflammatory disease mortality in older adults. *American Journal of Clinical Nutrition*, 2010; 92:634-643. Gaskins AJ, Mumford SL, Rovner AJ, et al. Whole grains are associated with serum concentrations of high sensitivity C-reactive protein among premenopausal women. *Journal of Nutrition*, 2010;140:1669-1676. □

Dried Cranberries Help Men with Lower Urinary Tract Symptoms

The herb saw palmetto and the antioxidant lycopene have been shown to help men with the urinary symptoms characteristic of benign enlarged prostate. Now, a study has found that cranberries can have a similar benefit.

Jitka Vostalova, PhD, of Palacky University, Czech Republic, and her colleagues treated 42 men with an average age of 63 years, who had been experiencing lower urinary tract symptoms typical of benign prostate disease. The men had elevated levels of prostate specific antigen (PSA), were free of prostate cancer, and had no signs of infection.

Vostalova gave the men either 1,500 mg of dried cranberry fruit or placebos daily for six months, after which their health was reevaluated.

Men taking the cranberries had significant reductions in prostate symptoms and improvements in overall quality of life. They also benefited from improvements in urine flow and lower PSA levels. Men taking placebos had no significant improvements during the study.

Reference: Vidlar A, Vostalova J, Ulrichova J, et al. The effectiveness of dried cranberries (*Vaccinium macrocarpon*) in men with lower urinary tract symptoms. *British Journal of Nutrition*, 2010: doi 10.1017/S0007114510002059. □

Citrus Fruits, Green Tea Lower the Risk of Developing Cancer

Eating citrus fruits can reduce the risk of developing cancer – and the benefits are greatly enhanced in people who also make a habit of drinking green tea.

Wen-Qing Li, PhD, of the Tohoku University School of Medicine, Japan, and his colleagues investigated the relationship between citrus consumption and cancer incidence in a study of

42,470 Japanese adults. The study participants ranged from 40 to 79 years of age and were followed up for eight years. Daily consumption of citrus was associated with an 11 percent lower risk of all cancers, and men benefited from citrus slightly more than did women. Regular citrus consumption was also associated with about a one-third lower risk of either pancreatic or prostate cancer.

When Li factored in consumption of about one cup of green tea daily, men and women had about a 17 percent lower risk of any type of cancer.

Reference: Li WQ, Kuriyama S, Li Q, et al. Citrus consumption and cancer incidence: the Ohsaki cohort study. *International Journal of Cancer*, 2010;127:1913-1922. □

More Evidence that Vitamin D Protects Against Colds and Flu

Considerable research has shown that vitamin D is needed for a healthy immune system and that high levels can reduce the risk of contracting colds and flu.

In a recent study, James R. Sabetta, MD, of the Yale University School of Medicine and his colleagues measured vitamin D levels in the blood of 198 healthy adults. They were evaluated for signs of any acute respiratory tract infection – typically caused by the common cold or influenza – over the 2009-2010 winter.

People with vitamin D concentrations of 38 ng/ml or higher had a two-fold reduction in the risk of developing acute respiratory infections. They also had a significant reduction in the number of sick days.

Reference: Sabetta JR, DePetrillo P, Cipriani RJ, et al. Serum 25-hydroxyvitamin D and the incidence of acute viral respiratory tract infections in healthy adults. *PLoS One*, 2010;5: doi e11088. □

Fish and Omega-3 Intake Seem to Influence Depression in Teens

Teenagers who consume fish and omega-3 fats have a relatively low risk of feeling depressed, according to a study by Japanese researchers.

Kentaro Murakama, PhD, of the University of Tokyo and his colleagues analyzed whether feelings of depression were related to dietary intake of fish and omega-3 fats. They focused on 3,067 boys and 3,450 girls, ages 12 to 15 years old, attending public junior high schools.

Overall, 23 percent of the boys and 31 percent of the girls had symptoms of depression. However, boys who ate the most fish were about one-fourth less

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Quick Reviews of Recent Research

- American eating habits are ... awful

Researchers from the U.S. National Cancer Institute analyzed dietary habits among 16,338 people considered to be representative of the overall population. People did not meet federal dietary guidelines for fruits and vegetables, but did so for total grain, beef, and bean consumption. Nearly everyone overconsumed sugars, solid fats (e.g., butter and hydrogenated vegetable oils), and alcohol. More than 80 percent of people age 71 or older, as well as more than 90 percent of people in all other age groups, consumes more than the “discretionary calorie allowance.”

Krebs-Smith SM. *Journal of Nutrition*, 2010; doi 10.3945/jn.110.124826.

- Vitamin D and physiotherapy have benefits

Swiss researchers treated 173 elderly patients who had suffered hip fractures. The patients were given either 2,000 IU of vitamin D daily, 800 IU of vitamin D, or extended physical therapy. The higher dose of vitamin D reduced hospital readmissions, but not falls. Meanwhile, physical therapy reduced falls, but not hospital readmissions. The researchers recommended using both therapies because they “address two different and important complications after hip fracture.”

Bischoff-Ferrari HA. *Archives of Internal Medicine*, 2010; 170:813-820.

- Chromium supplements help the brain

American researchers asked 26 older adults with mild cognitive impairment to take either 1,000 mcg of chromium picolinate or placebos daily for 12 weeks. By the end of the study, people taking the chromium had improvements in learning and memory. Magnetic resonance imaging scans indicated that people taking chromium had increased activity in several brain regions.

Krikorian R. *Nutritional Neuroscience*, 2010;13:116-122.

- Researchers find new omega-3 mechanism

A team of researchers from Japan and the United States identified a new way that omega-3 fish oils

Fish and Depression...

Continues from previous page

likely to experience feelings of depression. High dietary intake of eicosapentaenoic acid (EPA) was associated with a similar reduction in the risk of depression, but docosahexaenoic acid (DHA) was less strongly associated with better mood.

Reference: Murakami K, Miyake Y, Sasaki S, et al. Fish and n-3 polyunsaturated fatty acid intake and depressive symptoms: Ryukyus child health study. *Pediatrics*, 2010; doi 10.1542/peds.2009-3277. □

exert their benefits. In a cell study, the scientists found that omega-3 fish oils activate a cell receptor known as GPR120, which in turn helps reduce inflammation and improve insulin function.

Oh DY. *Cell*, 2010;142:687-698.

- Fructose stimulates cancer growth

Researchers from the University of California, Los Angeles, conducted laboratory experiments and found that fructose stimulated the proliferation of pancreatic cancer cells. They noted that their finding could have “major significance for cancer patients,” given the amount of fructose added to many foods. The researchers added that reducing refined fructose intake or inhibiting fructose-dependent biochemical reactions might help “disrupt cancer growth.”

Liu H. *Cancer Research*, 2010;70:OF1-OF9.

- Fish may protect against prostate cancer

A team of Canadian and American researchers analyzed 12 controlled studies that included 5,777 people with cancer and 9,805 people without cancer. Although diets high in fish did not appear to reduce the risk of prostate cancer, they did lower the risk of death from prostate cancer by 63 percent.

Szymanski KM. *American Journal of Clinical Nutrition*, 2010; doi 10.3945/ajcn.2010.29530.

- High cortisol levels show that stress kills

Cortisol is the principal stress hormone, and it is known to increase the risk of heart disease and accelerate the aging process. Dutch and Italian researchers analyzed urinary levels of cortisol among 861 people who were 65 years of age or older. People with the highest levels of urinary cortisol were five times more likely to die of cardiovascular diseases, compared with those who had low levels of the hormone. The risk applied to people with and without preexisting cardiovascular disease.

Vogelzangs N. *Journal of Clinical Endocrinology and Metabolism*, 2010;95; epub ahead of print.

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