

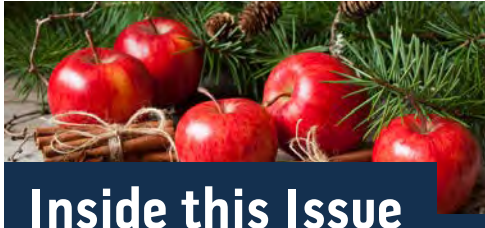


Riordan  
Clinic

# Health Hunters

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Riordan Clinic is a not-for-profit 501(c)(3), nutrition-based health facility in Wichita, Kansas cofounded in 1975 by Olive W. Garvey and Hugh D. Riordan. We have integrated lifestyle and nutrition to help you find the underlying causes of your illness. Since our inception in 1975, the mission has been clear and unwavering to "...stimulate an epidemic of health."

## Glyphosate: Does It Provide a Pathway to Modern Disease?

*This is a review of "Glyphosate, Pathways to Modern Diseases IV: Cancer and Related Pathologies," by Anthony Samsel and Stephanie Seneff at Deerfield NH and MIT, respectively.*



### AUTHOR

*Paul R. Taylor, B.A. B.S.*

Glyphosate, more commonly known as Roundup, is a general, broad spectrum herbicide. In the mid-1970s, it was used in a limited scope prior to planting or post-harvest to kill weeds and other undesirable plants growing in fields, lawns, decorative gardens, and orchards. Due to its broad spectrum herbicidal action, it could be used for little else because it killed not only weeds but also crops. It was also discovered in Scotland in the 1980s that glyphosate applied typically to grain crops late in the growing season, just as they began to ripen, could speed up the death of the plants and make whole fields ripen together allowing earlier harvest.



Moving forward another decade, the 1990s saw the advent of the first Roundup Ready crops. These were genetically modified organisms (GMOs) that were made to be resistant to glyphosate. This meant that these crops (corn, wheat, and soy) could be planted and then glyphosate could be applied to control weeds and undesirable plants without disrupting the growth of these Roundup Ready crops because they were resistant to the action of glyphosate.

As such the use of glyphosate has grown significantly since its first introduction in 1974 and is easily one of the most widely used herbicides in North America and in other parts of the world. Glyphosate does its job by blocking the critical shikimate pathway. This pathway is responsible for the biosynthesis of folates and aromatic amino acids (phenylalanine, tyrosine,

*Continued on page 2*

and tryptophan). This pathway is not present in humans and many other higher life forms that cannot synthesize these compounds and must acquire them from food. However, in plants, bacteria, fungi and other organisms, this is an important pathway. Blocking it will kill the organism. So how does this affect humans? If one looks at the amino acid set, it can have a profound impact. These amino acids are required from our food. However, our gut has a huge microbiome, which we are now learning provides us with many things including these necessary amino acids and folate. While they may not be the only source, they are a source we have relied on.

Now that we have a little background on glyphosate, how it works, and know that it is used extensively, let's dig in more to what the article is telling us. Monsanto, the company responsible for the development of glyphosate, spent years researching this product to bring it to market as an herbicide. To that end, glyphosate does exactly what it was meant to do, kill vegetation. However, the article shows that in presenting its case to accept glyphosate as a safe and effective herbicide, Monsanto deceived or obfuscated their data for reviewers at the EPA. To accomplish this, they often added historical controls to their control population data. These historical controls might be from controls done on previous experiments and even experiments that were not theirs or related to the experiments they were doing. This is not always bad assuming enough is known about each historical experiment to make true correlations between the individual sets of data.



However, in Monsanto's studies, the individual experiments showed that there was statistical evidence that glyphosate was unsafe. The historical controls were from studies with previous data that showed incidents similar problems to those of the glyphosate-treated animals. This meant that that controls from the study plus historical controls used to compare to glyphosate-treated animals, showed little or no incidents of problem. In addition, when data on the historical controls was analyzed, it was found that 9 out of 13 feeds used in controls were in fact contaminated with glyphosate. Thus the "spontaneous" diseases found in those historical controls may well have been caused by hazardous chemicals already present in the feed. When rat chow was analyzed independently, significant glyphosate and a common metabolite of glyphosate were found in three distinct

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## FOR THE BENEFITS IT MAY GENERATE IN THE FIELD GROWING CROPS, IT CERTAINLY APPEARS THAT THE EVIDENCE SUPPORTS (GLYPHOSATE) PLAYING A ROLE IN THE INCREASING INCIDENTS OF A VARIETY OF DEGENERATIVE DISEASES INCLUDING CANCER IN BOTH ANIMALS AND HUMANS THROUGH VARIOUS MECHANISMS.

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rat chow formulations, which have a base of corn, soy, and wheat. So while Glyphosate was approved by the EPA for use. In fact even with information provided to the EPA Approval Committee for glyphosate the approval of glyphosate was not unanimous, there were those who signed the document DO NOT CONCUR.

So what did the individual studies reveal in the animal (primarily rats) studies when the historical controls were removed and only comparison to the experimental controls was used?

- **Kidney damage** was seen with male animals having higher incidents or more severe damage than females.
- A 26-month long-term study by Bio/dynamics found **multitudes of tumors** in glands and organs including pituitary, thyroid, thymus, mammary glands, testes, kidney, pancreas, liver, and lungs.
- Other studies showed **cataracts formation** as well as other pathology in the eyes due to feeding of glyphosate in mice and rats.
- **Bioaccumulation** was also noted in rats as found by Monsanto in a 1988 study. Males retained greater amounts of the dose than females in organs, tissues, and carcasses.
- Further problems in animals or humans arise from the activity of glyphosate and one of its metabolites in the gut flora. In rats, as well as humans, **the gut flora can manufacture folate**, an important nutrient, which neither rats nor humans synthesize on their own. As noted above, the shimitake pathway is shut down in plants and bacteria by glyphosate. So folate deficiency can arise from impairment of this pathway in our gut flora. Several tumors can be induced in liver and other organs due to folate deficiency.
- Furthermore in laboratory animals it was found that choline chloride, a common additive in animal feed, also enhances the uptake of glyphosate in plants. In a study of US male health workers, it was shown that high intake of choline chloride **increased risk of lethal prostate cancer**. In the rat chows' test, all were positive for choline chloride and, as already noted, many chows were positive for glyphosate and one of its metabolites.
- A variety of pet chows were analyzed and all examined were found positive of glyphosate and its metabolites (at varying levels). The American Veterinary Medical Foundation stated that the leading cause of death for older pets is cancer. The Morris Animal foundation (founded 1948) found **25% of dogs will die of cancer and mammary cancers are also on the rise in cats and dogs**.
- There is limited direct evidence that glyphosate is **carcinogenic**.

However, Monsanto's own studies indicate it reacts with nitrogen oxides to form N-nitrosoglyphosate (NNG). N-nitroso is toxic and has been shown to induce cancers in more than 40 different animal species including higher primates.

- Nonalcoholic steatohepatitis (NASH) a fatty liver disease is on the rise due to high fructose (often sourced from corn) intake. Normally this is processed by gut flora but it is suspected that increased levels of glyphosate are **disrupting the shimitake pathway in the gut flora** and therefore fructose is getting delivered to the liver for processing.
- **Diabetes is on the rise** and often results from bile dysregulation and dysbiosis of the gut microbiome, both of which can result from higher glyphosate levels in the food supply. It also marks an **increase of inflammation and increased risk of liver cancer** and cancers of the intestinal tract. As shown in Monsanto's data for rats, kidney abnormalities increased in rats. Similarly the rise of kidney disease and kidney failure is on the rise in humans, this increase took a sharp upturn in 2006.
- Glyphosate has been shown to cause **hyperproliferation of skin keratinocytes** suggesting carcinogenicity there as well.
- Incidents of **breast cancer** are also on the rise and incidents correlate very closely to the increase in glyphosate usage.

While there is compelling evidence don't take my word for it, read the article yourself and draw your own conclusion. The authors certainly covered a large body of evidence that does not look favorably on glyphosate. For the benefits it may generate in the field growing crops, it certainly appears that the evidence supports it playing a role in the increasing incidents of a variety of degenerative diseases including cancer in both animals and humans through various mechanisms.

Samsel A., Seneff S. Glyphosate, pathways to modern diseases IV: cancer and related pathologies. Journal of Biological Physics and Chemistry 15(3):121-159 · January 2015.

*Paul Taylor got his BA in biochemistry and BS in microbiology from Kansas State University with an emphasis in genetics, immunology, organic chemistry, inorganic chemistry, analytical chemistry and biochemistry. He began working at Riordan Clinic in July 1994 for the RECNAAC project as a research scientist, primarily accessing nutrients and vitamins particularly vitamin C on their effect on tumor and normal cells lines. He remains an invaluable part of the Riordan Clinic staff as his role has transitioned to Information Services in addition to his time devoted to research. He is still involved in research through data analytics for monitoring trends and improving protocols at Riordan Clinic.*

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# Confused about food? You're not alone.



**AUTHOR**

*Luke Snow*

We've all seen the term "local food" used in marketing. Google it and you're likely to see area restaurants fill your screen in place of Farmers' Markets and the farmers themselves. Everyone from grocery chains and big box retailers to franchised and locally-owned restaurants want in on the action of local food, but are they purchasing from area farms or just playing a marketing game?

So, what is local food? When we see the term used in marketing, the typical first thought is that it must have been grown or raised within a given geographic region. Dig a little deeper and most believe it also involves food that was regeneratively or sustainably produced.

As with most confusing food marketing descriptors used today, local food is no exception. In fact, there is no universally accepted definition for the term.

Today, food isn't easy. For many, eating something truly good for us has become too confusing and scary and that, my friend, is by design. Under the guise of honesty, clarity or transparency, food companies are keeping us wondering through creative marketing tactics.

Let's follow the money. Multinational food corporations, agrochemical giants, and pharmaceutical companies all profit from the toxic, synthetic chemical, intensive food production models that were developed following World War II. These chemical-dependent giants still dominate the system, but they are stuck in the old failing models of enormous single-crop (monoculture) farms and confined animal production facilities. Feeding the world? Too big to fail? I don't think so. Neither have concern for our health or that of the environment, which today, most would argue, go hand in hand. In a race to see who can dominate, they intentionally fabricate confusion around food and perpetuate a disconnect between our nutritional requirements and where and how our food is produced.

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## THE CONVENTIONAL, INDUSTRIALIZED AGRICULTURE MODEL IS FAILING US AND WE KNOW IT.

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We see Non-GMO labels on food packages that do not contain food crops that have ever been genetically modified. The term "natural" on foods that are heavily processed and downright

dangerous to consume. Farm Fresh? What does that mean?

Obviously if we're looking at a fruit or vegetable, it was grown on a farm. But fresh? If most of the produce found in grocery stores travel 1,500 miles to your plate, is it fresh? Eggs? What does "all-natural", "free range", "cage free", "farm fresh", "pasture-raised", or "no-hormones" mean? We see gluten free labels on products that don't contain cereal grains such as wheat, barley or rye that contain the gluten. And, no added sugar labels on foods that are laden with, you guessed it, sugar. This tiring, ridiculous list goes on and on and on.



The single largest impact that humans have on the planet is agriculture and nature is fighting back against the systems that aim to control it. Chronic illness, cancer, herbicide resistant weeds, insecticide-resistant insects, antibiotic-resistant bacteria, and permanent dead zones in our lakes and oceans are just a few examples of the direct results of the industrialized food system. Let's not forget about E coli, mad cow disease, salmonella, and many other terrifying food safety related

health problems that we didn't know could exist 40 years ago. These are all signs of a failing system and consequences of a model more concerned with profits than doing the right thing.

The conventional, industrialized agriculture model is failing us and we know it. This tipping point is our opportunity to vote with our dollar and change the system. Spend your money in a way that speaks to a world you wish to see. Take the time to research and know the production and business practices of the companies you buy from. Sounds difficult and time consuming? Make it easier on yourself.

Who doesn't love a farmers' market? The opportunity to talk directly to the producer and determine whether they're honest and deserving of your hard-earned money is perfect. This kind of transaction gives the food we consume meaning. We know how it was produced. We feel good about financially supporting the people we buy from and the fact that our money stays local, means we're helping our city and state economy as well. For us, this is about a more honest, self-reliant food system that is in direct contrast to the conventional, deceptive industry that is more concerned about profits and keeping consumers ignorant.

My wife Amy and I are advocates for food that is grown or raised in harmony with nature and even better, close to home. We believe that now, more than ever, regeneratively grown and raised local and regional food production and our ability to access it has never been more important. We own FarmShop, LLC, a company focused on short-chain, local food logistics. We work to fill unique and necessary gaps between the soil and the table; improving access for consumers and producers. FarmShop also owns and operates Old Town Farmers' Market, Wichita's downtown, year-round Market. We are working with area organizations to improve the overall food system and are partnering with municipalities to develop Markets that better serve their communities as well. If you know your farmer, you know your food. There are no tricks here! In our opinion, food production should be a net benefit to the health of our environment, our economy, and ourselves. We care about food miles in relation to local food, but we are just as concerned about how that food was produced.



*Old Town Farmer's Market, Wichita KS*

These inherent problems surrounding food and health has created a fast-growing locavore movement across the country. One of my favorite recent food quotes is: "I'm not an environmentalist, or a doctor, or a nutritionist," by chef and author, Dan Barber. This quote has an underlying meaning; when you work in or around sustainable or regenerative agriculture, we regularly find ourselves in discussions on the topics of climate change, habitat pressure, chronic illnesses, and health because the work we do is a piece to a much larger puzzle. For most of us, we enjoy having these conversations, and we feel good about our ability to help even if it's just as a sounding board. Food is emotional and personal. Our health is even more so. When someone feels comfortable enough to open up and ask questions or share their experiences, amazing connections begin to happen.

Purchasing from knowledgeable, like-minded people is safer, easier, and makes you feel good both physically and emotionally. It takes the fear and confusion out of food and improves everyone's quality of life. We hope you'll join us in realizing a better, safer, more meaningful approach to the ingredients you choose to put on your plate.

*Luke Snow and his wife Amy own Farm Shop, LLC. Learn more about how they're promoting local food at [farmshopllc.com](http://farmshopllc.com)*

## Contact the Editor

Please send any comments or suggestions to  
[newseditor@riordanclinic.org](mailto:newseditor@riordanclinic.org).

Thank you for reading,



**Dr. Anne  
Zauderer**  
*Editor*

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# Defend Yourself during Flu Season



**AUTHOR**

*Olivia Nugroho, RN*

## Ultraviolet Blood Irradiation

**A safe and natural therapy using light as a natural antibiotic**

Ultraviolet Blood Irradiation (UBI) is a procedure that exposes the blood to light to heighten the body's immune response and to kill infections.

**Visit our website at [riordanclinic.org](http://riordanclinic.org) or call 316-682-3100 to make an appointment today.**

**\$25  
OFF\***

**during the month of December!**

\*Must be a current Riordan Clinic patient

Flu season is here. I want to introduce you to a new way for you to protect yourself and your loved ones from getting the flu virus: Ultraviolet Blood Irradiation (UBI)

UBI is an old and easy-to-administer form of ultraviolet (UV) light therapy. It was used many years before antibiotics were introduced. In early 1920's a physicist named Dr. Emmet Knott developed a technique to treat patients suffering from blood-borne bacterial infections by taking some of their blood, treating it with ultraviolet light, and putting it back into the patients' bodies. This treatment resulted in patients recovering from infection within 24 hours of treatment.

The current procedure utilizes a combination of ozone and UV light to help eliminate chronic and acute bacterial infections, viral infections, autoimmune diseases, allergies, and chronic yeast overgrowth.

How does UBI work? A small portion of a patient's blood, approximately two ounces (35-60 cc), is withdrawn and mixed with normal saline. A small amount of ozone is also infused into the bag containing blood and normal saline. This mixture is then exposed to ultraviolet lights through a machine containing two types of UV light, UVA and UVC. The UV light treatment destroys bacteria and viruses in the blood. The blood is then reinfused into the patient's body.

The treated blood acts like a vaccination because the attenuated (weakened) germs are introduced to the immune system, which stimulates the body to produce B cells. B cells are responsible for forming antibodies, which contribute to a strong, long-term immune response against the pathogen.

As I mentioned above, there are two bands of light that are used in UBI treatment, UVA and UVC. These two UV lights have different purposes. The UVA is very helpful in treating diseases that cause inflammation such as

multiple sclerosis, lupus, and rheumatoid arthritis. The UVC light has been proven to be very effective in treating bacterial and viral infection such as shingles, MRSA, HIV, influenza, hepatitis, and many more.



The use of ozone in UBI treatment is to add oxygen to blood, which then can stimulate a self-healing response in the body. Giving more oxygen to the body can also improve the immune system and decrease inflammation.

Ozone therapy can be used to treat a wide variety of other health problems such as acute and chronic Lyme disease or an upper respiratory illness caused by bacterial or viral infection. According to Dr. Rowen, it is also very beneficial for people with heart disease, immune diseases, injuries, and chronic degenerative diseases such as osteoarthritis (Mercola, 2012).

There should not be any adverse effects from UBI treatment when it is done properly. The most common side effect is flushing of the skin, which is caused by increased blood flow. Another common side effect is called a Herxheimer reaction. This is caused by rapid death of large numbers of infectious organisms and may cause flu-like symptoms, which usually is short-lived.

The only contraindication for having this

procedure is if you are currently taking a sulfa drug (such as Bactrim). Research has shown that sulfa drugs interfere with UBI treatment by absorbing the ultraviolet energy and reducing the effectiveness of this treatment.

Another very important thing to know before you do this therapy is to make sure you drink plenty of water before, during, and after treatment. Drinking water will help increase your blood flow, keep you hydrated throughout your treatment, and also assist your body in flushing out toxins.

UBI can be a safer and more effective option to prevent or treat the root cause of the flu virus rather than getting a vaccine. It can help you avoid the dangerous effects of the preservatives used in the flu

vaccine. You might wonder why this treatment isn't as widely used as antibiotics or vaccines in traditional medicine. Sadly, most physicians are more likely to promote drugs and surgery first even when safer, more natural alternatives exist.

Now that you know more about the UBI treatment, you have a more natural and safe alternative to protect yourself and your loved ones from the flu and harmful pathogens. The UBI therapy usually takes less than an hour, so it can easily fit your busy schedule.

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Mercola, Joseph. "Dr. Rowen on the Uses of Oxidative Medicine."  
Mercola.com. N.p., 14 Oct. 2012. Web. 12 Dec. 2016.

# DOCTOR WANTED

This isn't a regular job posting.  
We're looking for a doctor who is seeking more



## CONNECTION

No rushed 15-minute appointments around here. We believe that patients, who we call co-learners, deserve more time to be seen and heard and to connect both with their doctor and our medical team.

## COMMUNITY

With a rich 43 year history and tapestry of a diverse staff, our company culture is like none other. On a bigger scale, Wichita provides progressive attractions and amenities at a cost of living that will make you quickly adopt the phrase #Wichitawesome

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Working with the world leaders in IV Vitamin C and Integrative Medicine has its perks. First and foremost is the ability to develop your talent and skills to continually provide excellent care to your co-learners. We are looking for a dynamic Medical Doctor (MD) or Doctor of Osteopathic Medicine (DO) who wants to take our Wichita team to the next level.

Sound like you? We'd love to talk



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# 2018 IVC Symposium

In October almost one hundred doctors and medical professionals from around the globe gathered together in Wichita, Kansas to hear from thirteen expert speakers and learn more about IV Vitamin C and the Mitochondrial Dysfunction. Saturday night three recipients were named as the 2018 Pearl Maker Award winners. Thank you to those who attended and continue to spread the mission of REAL HEALTH.



*Pearl Maker Award Recipient Dr. Victor Marcial-Vega, orthomolecular oncologist and Dr. Ron Hunninghake*



*Dr. Ron Hunninghake and Pearl Maker Award Recipient Dr. Frank Shallenberger, medical pioneer in ozone therapy*



*Pearl Maker Award Winner Ron McGuff, president of McGuff Compounding Pharmacy Services, and Dr. Ron Hunninghake*



*Dave Austin, IVC researcher, Dr. Nina Mikirova, Director of Research at Riordan Clinic, Dr. Tom Levy, vitamin C expert and author*



*Dr. Dustin Moffitt getting a book signed by Dr. Nasha Winters, author of The Metabolic Approach to Cancer*



*The fantastic staff of medical assistants and nurses at the Riordan Clinic!*



*Dr. Charles Hinshaw, Director of the Bio-Center Laboratory at Riordan Clinic*



*Dr. Stan Odle and Dr. Ron Hunninghake*



*Dr. Atsuo Yanagisawa, Dr. Ron Hunninghake and Dave Austin*



*Dr. Michael Joseph with his IV Vitamin C*

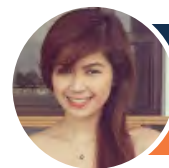


*Dr. Tom Levy and Dr. Victor Marcial-Vega*



*Dr. Nasha Winters, author of "The Metabolic Approach to Cancer"*

# Exercise to Improve Your Mood



**AUTHOR**

*Allie Cooper*

Exercise isn't just for burning calories and losing weight. The physiological and psychological benefits of exercise are immense; from improved body and organ functions to reduced risks of cardiovascular disease, type 2 diabetes and even cancer. Another huge benefit is improved mental acuity and cognitive function, which will make you feel better.

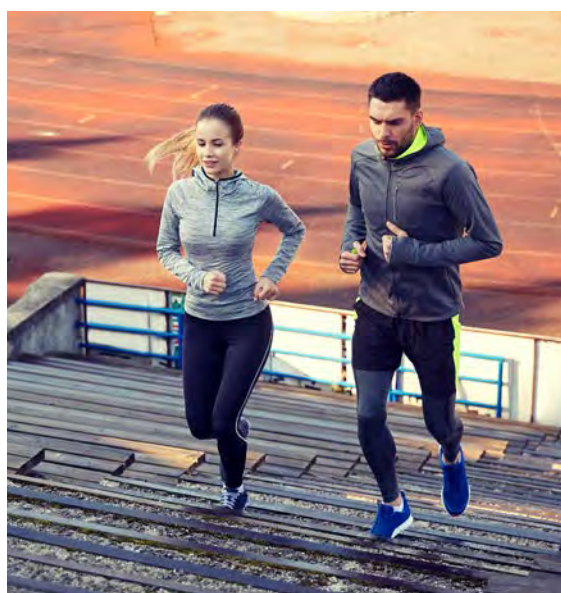
When you feel better, you have a better outlook on life, are more positive, and more likely to continue exercising. It's a positive cycle. This is because when you exercise your brain releases feel good chemicals known as endorphins, which are natural painkillers that help boost your mood and make you feel positive. As we've previously discussed at the Riordan Clinic, positive thoughts have a huge impact on mood and emotions.

Most people want to exercise to maintain or reduce their waistline and firm up, but that's a simple way of looking at it. The type of exercise you do will be dependent on your preference, physical capacity, and your mood in that moment. Intense cardiovascular exercise such as running, weightlifting, high intensity interval training, and aerobic training will increase the release of endorphins as well as other beneficial chemicals for a mood-raising high to keep you in good spirits. Just 30 minutes of intense exercise can raise your mood.

This is also due to the process whereby oxygenated blood refreshes not only your muscles but your brain as well. A study in the eLife Journal reveals that exercise increases levels of the brain derived

neurotrophic factor (BDNF) protein, which improves cognitive function and resistance to injury. The process helps build new brain cells and improves transmission of nervous system signals through the brain. The result is a good, intense workout session that leaves you feeling mentally sharp and invigorated.

**WHEN YOU FEEL BETTER, YOU  
HAVE A BETTER OUTLOOK ON LIFE,  
ARE MORE POSITIVE, AND MORE  
LIKELY TO CONTINUE EXERCISING.  
IT'S A POSITIVE CYCLE.**



Running is a great intense workout and the quintessential mood enhancer. It can be done alone, or preferably in a group, where keeping pace with others will motivate you to new heights. It is also a great way to strengthen your bones and heart. Very Well Fit lists yoga as top among mood lifting exercises because it relieves tension and stress by exercising your breathing. Yoga will also elongate your muscles for improved range of motion, help you prevent non-contact injury, and allow your entire body to function in unison.

While exercising is great to get you into shape, and keeping you there, it is also essential for injury recovery, injury prevention and improving your performance - three factors that can improve mood. Ladbrokes wrote

## Upcoming Events

For more information or to register for any of these events, please visit [RiordanClinic.org/events](https://riordanclinic.org/events) or call 316.682.3100

## Riordan Clinic Closed

**November 22nd – 23rd** *Thanksgiving Holiday*

**December 24th – 25th** *Christmas Holiday*

**January 1st** *New Year's Day*

### Food as Medicine

**Wednesday December 5th**

**11:30am - 1:30pm @ Wichita Campus**

*Anne Zauderer, DC*

**Cost: FREE**

This in-depth course will connect the dots and address some fundamental questions behind how our diet impacts our health and well-being and how it contributes to the progression of chronic disease. PLEASE NOTE: This course is available in-person at the Wichita campus, and a prerecorded version is available online. For more information please visit: [riordanclinic.org/food-as-medicine](https://riordanclinic.org/food-as-medicine)

## STUDIES HAVE SHOWN THAT THE PREFRONTAL AND MEDIAL TEMPORAL CORTEX, THE AREAS THAT CONTROL THINKING AND MEMORY, ARE LARGER IN PEOPLE WHO EXERCISE.

about how Czech international goalkeeper Petr Cech suffered a head injury, which could have easily been fatal. After surgery and through his recovery, Cech was still plagued by headaches and mood disorders weeks after the incident. In an interview with The Guardian almost two weeks after his injury, Cech revealed how he would wake up because of horrible headaches and the strong medication. Injuries, especially serious head and brain injuries, can be the death of motivation, and getting back to fitness is a long road. Yet, overcoming the pain, and working towards rehabilitation is great for a creating a positive mood and mindset.



Cech's rehabilitation was a slow one, as initially he could only move around for 15-20 minutes before he would become fatigued. Over time, his rehabilitation built up to aerobic and anaerobic exercises. In addition to increased BDNF production, aerobic and anaerobic exercise increases the levels of neurotransmitters in the brain including serotonin, epinephrine, norepinephrine and dopamine. These chemicals have a profound influence on your energy levels and contribute to make you feel rejuvenated after a workout. They reduce stress levels significantly, change your brain chemistry, and can help your memory and thinking.

Studies have shown that the prefrontal and medial temporal cortex, the areas that control thinking and memory, are larger in people who exercise. As such, exercise helps memory and thinking as it reduces insulin resistance, inflammation and stimulates release of chemicals that affect brain cells. Exercise also promotes growth of new blood vessels in the brain and helps the survival of existing brain cells. Even simple exercises like regular walking have been shown to enhance creativity and slow the progress of cognitive decline. Ultimately your brain will be happier and so will you.

When you're feeling happy you're more likely to continue to exercise because you have a positive outlook and are feeling great about yourself and your body. So, don't think of exercise just as a way to get to that weight goal you're aiming for or just to look great; focus on the process which elevates your heart rate, gets your blood pumping, cycles fresh oxygen to your body and changes how you feel both psychologically and physiologically. Exercise is meant to help protect you from diseases, make you feel good and elevate your mood.

*Article solely for the use of riordanclinic.org  
Prepared by FitnessCoach\_AC*

*Author's Bio: FitnessCoach\_AC (Allie Cooper) is a personal trainer and exercise guru. Her mission is to get everyone she meets to be happy through exercise. She used to be a long-distance runner and shares her experiences and exercise program with children and adults, in schools and workplaces throughout the country. In her spare time she loves to cook and is an avid fan of broccoli.*



# SAVE THE DATE

**IVC ACADEMY**  
October 3-5, 2019

*Riordan Clinic @ Wichita, KS*

**IVC SYMPOSIUM**  
October 1-3, 2020

*Drury Broadview Hotel  
@ Wichita, KS*

**ivcandcancer.org**

# #ichooserealhealth

RIORDANCLINIC.ORG/REAL-HEALTH

WRITTEN BY: DONNA KRAMME, CEO

Real Health to me encompasses the body, mind, and spirit, and orchestrating them to work in harmony. If even one of the three is out of sync, our life can be in chaos. We are all on a journey to achieve this balance, and along life's way there can be challenges. For some it can be a life-altering or life-threatening physical illness; for others it can be a spiritual crisis; and yet another may experience a mental trauma. Unless you are in the middle of it, who is to say which is the worst.

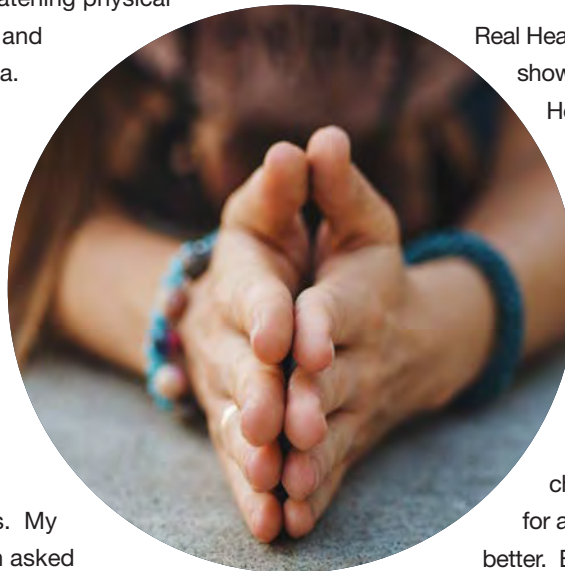
The one area I'd like to focus on is emotions – one emotion in particular – gratitude. Just this one little part of who we are and how we see the world can affect our body, mind, and spirit in a big way.

At the Riordan Clinic, each staff member chooses a saying for his/her business cards. My card has always said "grateful." I have been asked many times if I would like to change it, and my answer is always no. This word/emotion/action means so much to me. It keeps me balanced and gives meaning to my life.

When I express gratitude, I am the best me I can be. I am better physically, mentally, and spiritually. When life gets in the way, and I run short on showing gratitude, my body takes a hit. My mind doesn't seem as clear and my spirits are low. Now and again, it takes a bit of time to figure out why I am out of sync and what is going on, and then it hits me – sometimes like a ton of bricks – I haven't shown as much gratitude.

It is easy to be grateful during the good times, when everything is going well. I don't seem to falter then. It is when times are harder and the blessings are not quite as obvious, or maybe I'm just not paying close enough attention, that I might fall short in showing enough gratitude. These are the times when we learn and grow the most, and become the person we are meant to be. Sometimes it seems that the more challenging times come more often than the easy times, but maybe this is

where we should show the most gratitude. When you think about it, it seems like a small thing, but I believe it can make a world of difference in us. There are days that the gratitude trickles out of us, and other days it is like a deluge.



Real Health to me is made up of so many things, but showing others gratitude not only helps your Real Health but also theirs. Next time you are troubled and wondering why: remember those you love and who love you, the roof over your head or the safe haven you have found, the food that you have been given or that you have been able to give to someone else, the beauty of the earth and the stars above, and how today you grew just a little bit stronger by a challenge you faced. Each moment of our lives is an opportunity to change our path if we want, to find love, to care for another, and to make someone else's life a little better. Be the better for someone else.

Time, as we know, goes so fast, and in the blink of an eye we have missed that very important something. Don't let another day go by without noticing all the little things that make this world such a wonder, and take the time to tell someone that you are grateful they

are in your life. Count those blessings one by one.

I leave you with these quotations:

*Gratitude can transform common days into thanksgivings, turn routine jobs into joy, and change ordinary opportunities into blessings. --William Arthur Ward*

*I truly believe we can either see the connections, celebrate them, and express gratitude for our blessings, or we can see life as a string of coincidences that have no meaning or connection. For me, I'm going to believe in miracles, celebrate life, rejoice in the views of eternity, and hope my choices will create a positive ripple effect in the lives of others. This is my choice.*

--Mike Ericksen

**REAL HEALTH TO ME ENCOMPASSES THE BODY, MIND, AND SPIRIT, AND ORCHESTRATING THEM TO WORK IN HARMONY. IF EVEN ONE OF THE THREE IS OUT OF SYNC, OUR LIFE CAN BE IN CHAOS.**