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Flu Shots? Just the Facts, You Decide



Should you get a flu shot? This topic is constantly debated. What are the side effects? Does it really work? Although this seasonal vaccine is used annually in the United States and many other countries, many people do not have enough information about it to decide whether or not they should receive it. The purpose of this article is to present the most current and accurate scientific knowledge about the seasonal flu vaccine. For more information about the flu vaccine, go to **www.mercola.com** for details and references.

FACT. The flu vaccine is reformulated annually, based on the strains of Type A and Type B influenza viruses identified in Asia in the months of January and February of each year. Frequently, the annual vaccine used in the U.S. does not contain the viruses responsible for that years' flu, and thus is totally ineffective.

FACT. This years' flu vaccine will contain the Swine flu virus, H1N1, in addition to a combination of three Type A and Type B viruses. The U.S. Centers for Disease Control and Prevention (CDC) is recommending its use for everyone six months of age or older. Last year, 2010, the H1N1 vaccine was not recommended for anyone over 65 years, because it was stated that they were a low risk group and did not need it. This year's vaccine contains a 400% increase of the "inactivated" H1N1 virus. To date, no safety evaluation or effectiveness studies have been published. The safety for use prior to conception and during pregnancy is not known.

FACT. Side effects of the H1N1 vaccine include Guillain-Barre Syndrome (GBS), known since 1976 when the first H1N1 vaccine was used. GBS is characterized as an ascending paralysis beginning in the legs and ascending upwards. It carries a 5% mortality rate. Other troublesome side-effects include thrombocytopenia (low platelets) which interferes with initiation of blood clotting, and Bell's Palsy, a form of facial paralysis. While infrequent, when any of these three side-effects occurs following H1N1 vaccination, it is considered a cause and effect relationship.

FACT. The flu vaccine is constituted with thimerosal mercury (49% by weight), aluminum, TritonX (detergent), phenol (carbolic acid), ethylene glycol (antifreeze),

Flu Shots? Just the Facts, You Decide continues on page 2...



Letter from the Editor:

by Amanda Hawkinson

'Tis the season for the arrival of coughs, drips, sore throats, and fevers. Along with the cold weather, we can expect to battle cold and flu season. Adults and kids alike can be seen sucking on lozenges, downing "fix-all" medicines, and getting flu shots. By doing this, we attempt to forge through the season unscathed. Many parents wonder how they can keep their kids, as well as themselves, healthy during the holiday season. There has to be another way!

This issue of the *Health Hunters Newsletter* focuses on how to prepare for—and weather—it, by divulging the facts of the flu shot, how to prevent colds and the flu, as well as how you can boost your immune system.

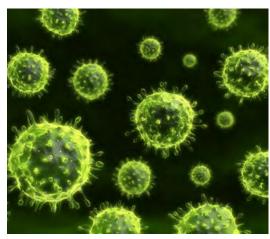
So as you celebrate this holiday season, remember to follow these tips for a healthy lifestyle: eat a balanced diet, drink water, exercise, rest, minimize stress, and get plenty of fresh air and sunlight. Not only will you arrive at the end of the entire family-foodgifts-shopping marathon on top, but you will notice an increase in the wellbeing of your immune system and overall health!

Thank you for being a dedicated reader, for using the healthful tips we present to you each month in your everyday lives, and for continuing to spread the word of the health, hope, and healing that the Riordan Clinic provides!

Happy Holidays and pleasant reading!

Amanda Hawkinson Editor newseditor@riordanclinic.org Don't forget to "Like" us on Facebook.

Flu Shots? Just the Facts, You Decide continued from page 1...



betapropiolactone (disinfectant), nonoxynol (anti-STD agent), Octoxinol 9 (vaginal spermacide), formalhyde, and sodium phosphate. At least one of the flu vaccines contains 25 micrograms of mercury per dose, which is 250X the EPA safety limit.

FACT. There is increasing evidence that individually or in combination, mercury, aluminum and formaldehyde are contributing factors in the genesis of Alzheimer's Disease.

FACT. "Significant influenza vaccine effectiveness could not be demonstrated

for any season, age or setting examined." (*Archives of Pediatric and Adolescent Medicine*, Oct. 2008).

FACT. Influenza vaccine was not associated with reduced risk of pneumonia in older people. (*Lancet*, 2008). The Lancet study echoed the results of an earlier study published in the *New England Journal of Medicine*.

FACT. No decrease in deaths from influenza and pneumonia in the elderly occurred despite an increase in vaccine administration from 15% in 1980 to 65% in 2010. (*American Journal of Respiratory and Critical Care Medicine*).

FACT. 70% of doctors, and 62% of health care workers do NOT get the yearly flu shot.

FACT. Before the CDC advocated use of flu vaccine in children less than five years of age, the number of flu deaths from zero to five years was very low and declining. In 2003, the CDC advocated the use of flu vaccine beginning at six months, following which the death in children less than five years has increased significantly (some say the death toll has "skyrocketed").

FACT. In past years, it was thought that administering the flu vaccine as widely as possible would offer considerable protection to those not receiving the vaccine because of diminished exposures to flu. This is known as "herd protection". It is now known that the flu vaccine does not prevent those who have been vaccinated from carrying the virus in their nasal passages, thereby eliminating any herd protection.

FACT. Some authorities now believe that seasonal flu is a manifestation of vitamin D3 deficiency. A study published last year showed that children taking vitamin D3 were 58% less likely to catch influenza, and that vitamin D3 was more effective in preventing flu than was flu vaccine. The American Academy of Pediatrics now recommends that women who are planning to become or are pregnant take 4000 IU's of vitamin D3 daily.



FACT. The composition of flu vaccines, and other vaccines, is greatly influenced by a WHO committee known as the Pandemic Advisors. This past year it became known that a least five of the committee members have financial ties to vaccine manufacturers.

At the Riordan Clinic we believe that to be true co-learners on the journey to better health, our patients need to be informed, not only about chronic illness and their health, but also about traditional treatment. In the end, it is your body and your decision when it comes to choosing treatment. These are just the facts; you decide.

Know Your Nutrients: Echinacea

Echinacea is an herbal remedy. For centuries, people have used Echinacea to treat the common cold. It is believed that the plant can boost the immune system and reduce the severity or duration of cold symptoms. Interestingly, Echinacea is one of the best-selling herbal products in the United States.

What Is Echinacea?

A flowering plant that grows throughout the U.S. and Canada, the nine species of Echinacea are known by names such as purple coneflower or black-eyed Susan. The entire plant, including the leaves, stems, flower, and roots, is used to produce supplements, liquid extracts, and teas.

Echinacea for the Common Cold: Does It Work?

Various studies of Echinacea as a treatment for the common cold have been performed but with mixed results. The studies have shown that it does have an effect on the immune system by increasing the number of white blood cells and by boosting the activity of other immune cells.

These effects, however, may not translate into an actual benefit when it comes to fighting the common cold. A study by the *New England Journal of Medicine* in 2005 found that Echinacea was no more effective than a placebo in preventing cold and did not reduce the severity of cold symptoms. Also, two studies that were funded by the National Center for Complementary and Alternative Medicine found no benefit from Echinacea in the treatment of the common cold in either children or adults.

On-the-other-hand, there are many variables to consider when studying Echinacea for the common cold. These studies have not only looked at different types and strengths of Echinacea, but at different parts of the plant or root as well, which makes it difficult to compare the results. It is very possible that some formulations are better than others and that Echinacea may help against some viruses that cause colds but not others.

Are There Side Effects of Echinacea for the Common Cold?

Although research on the benefits of Echinacea for cold treatment has provided mixed results, all agree that the risks seem



Stay Healthy During Flu & Cold Season

by Vicki Ross, R.N.

Along with the coolness of the fall and autumn leaves comes flu and cold season. Let's make this season your best year yet by enjoying the cool weather and beauty without having colds or the flu.

The flu is a respiratory infection caused by the influenza virus. With the ability to come on very suddenly, it is usually spread from person to person by moist droplets that have been coughed or sneezed and can also be picked up off of surfaces where the droplets have landed. While flu symptoms include high fever, headache, weakness, cough, sore throat, and muscle aches, the cold is milder. It has a slower onset and usually causes a runny nose, sore throat, congestion, sneezing and coughing.

While the flu and colds present a challenge to our immune system, there are many preventive and therapeutic tools readily available to us that can help lessen the burden of dealing with these two invaders. So just how do you decrease your chances of getting the flu or cold? Your best bet is to stay healthy and wash your hands often. But how do we stay healthy? We follow the eight laws of health:

- 1) WATER: We need at least 8 to 10 8oz glasses of fresh water daily. Water keeps us well hydrated and helps flush out unwanted toxins.
- 2) SLEEP: We need at least 6 to 8 hours of quality sleep daily. Sleep helps rejuvenate the body.
- 3) EXERCISE: We need at least 30 minutes of exercise 3 to 4 days a week, but daily exercise is the preferable. It can be as simple as taking a 30 minute walk. Exercise has many benefits. It can decrease your chances of cancer and help stabilize your blood sugars, plus it releases good hormones that make us feel great. Who doesn't want to feel great?!
- 4) **DIET:** Eat a variety of fresh fruits, vegetables, whole grains and nuts. Decrease or cut out sugary foods, soda pops and sugary drinks, and starchy vegetables. By doing this and eating more lean meat, you can help keep your weight under control.
- 5) SPIRITUALITY: This is a key to help us stay well-rounded. Each person's spiritual life is different; therefore individuals must choose their path for spiritual growth.
- 6) FRESH AIR: We all need to get plenty of fresh air, whether is it is going outdoors or letting fresh air into our homes, which helps with unwanted germs.
- 7) SUNLIGHT: The sun is also very important to our health, and getting 10 to 15 minutes of sun per day helps keep our vitamins D levels up. Keeping your vitamin D optimal levels help decrease the chances of getting the flu or a cold. If you don't get out in the sun much, supplementing with vitamin D3 will help keep your levels where they should be.
- 8) **TEMPERANCE:** We need to do all things in moderation to help with our overall health.

Along with following the eight laws of health, it is also important to avoid transmission of a cold or the flu. A few ways to avoid this can be to covering our coughs or sneezes with a tissue, refrain drinking after others or kissing someone that has symptoms of a cold or flu. Keeping the surfaces in your home clean will also help in prevention, as anyone that has the symptoms will be touching areas that the virus can live on for several hours. When out shopping, use alcohol wipes to wipe down shopping cart handles and use alcohol based hand sanitizer after leaving the shopping area. Wash your hands before eating and avoid touching your eyes, mouths and noses with your hands.

Another option that can help decrease the chances of getting the cold or the flu is picking up one of the many supplements at the Riordan Clinic Supplement Store. Vitamin D3, vitamin A, and zinc are just a few of the supplements that we have here at the Clinic that help us maintain health and avoid illness.

If you are interested in learning more about flu and cold prevention and/or reaching optimal health, call the Riordan Clinic today at 316-682-3100 to make an appointment with a Riordan Clinic doctor.

to be low. The most common side effect is an upset stomach, but in some cases people have had allergic reactions to Echinacea. This can cause rashes, worsening asthma (if you have asthma), and anaphylaxis (a life-threatening emergency that can cause difficulty breathing).

If you are allergic to other plants in the daisy family, including daisies, ragweed, chrysanthemums, and marigolds, you may be at a higher risk of having an allergic reaction to Echinacea. Also Echinacea may not be safe for people who use certain drugs, such as drugs used for heart problems (like Cordarone and Pacerone) and some anti-fungal medicines. Some studies have shown that the combination of Echinacea and these drugs could cause liver damage.

Some experts recommend that those taking Echinacea should limit their usage to no more than eight weeks at a time. Although there is no evidence that the herb causes harm after this point, there is also no information about its long-term safety. Because herbal remedies, like Echinacea, are not regulated in the U.S. the way medications are, a supplement bought at the drugstore may not actually have what the label says it does.

Other Types of Alternative Treatment for the Common Cold

Many other herbs, plants, minerals, vitamins, and supplements are said to help symptoms of the common cold. These include eucalyptus, garlic, honey, lemon, menthol, vitamin C, and zinc.

If you are interested in using Echinacea for the common cold—or another alternative treatment—talk to a Riordan Clinic physician today. Remember that herbal remedies carry risks (just as any drug does) and can cause side effects or interact with other medications. Make sure that your doctor is aware of every alternative treatment that you use.



Seasonal Defense: Boosting Your Immune System by Nina Mikirova, PhD, Director of Research



The weather changes in autumn, cold temperatures set in, and runny noses and sniffles start to seem like an epidemic. Around Halloween, the combination of the cold and sugar from our successful trick-or-treating venture sets most of us up for a spate of colds and the flu that come and go through the winter. Is there a simple way to boost your immune system so you will not get sick?

We all possess the innate ability to protect ourselves from disease. This wondrous diseaseprevention system is the immune system. The function of the human immune system is to defend the body against invaders. Microbes

(germs or microorganisms), cancer cells, and transplanted tissues or organs are all interpreted by a healthy immune system as "non-self" against which the body must be defended. Although the immune system is extremely complex, its basic strategy is simple: to recognize the enemy, mobilize forces, and attack.

A strong immunity is the first line of defense against colds, the flu, and countless other viral and bacterial germs. Since prevention is better than a cure, it pays to work on giving the immune system all the help it can get.

The overuse of pharmaceutical drugs, and the lack of information concerning immunity boosting has left the average American's immune system efficiency level at 40% or 50%, at best. Some countries, like Japan, have a traditional diet that creates a stronger immune system and consequently Japanese people (who embrace the traditional diet) usually live a longer lifespan. It's no coincidence that Japanese women are among the longest living people on the planet.

Here we will discuss ways to boost your immune system. As our clinic specializes in alternative therapies, we offer information on supplements and living a healthy lifestyle. Adequately feeding your immune system boosts its fighting power. Immune boosters work in many ways. They increase the number of white cells in the immune system army, train them to fight better, and help them form an overall better battle plan. Boosters also help to eliminate the deadwood in the army, substances that drag the body down.

There are countless supplements that claim to be involved in supporting or boosting a healthy immune system.

According to estimates, 40% of U.S. adults use supplements regularly and spend \$1.3 to \$1.7 billion on them annually. About half of these persons take a combination vitamin and mineral product.

Most of the research on vitamin and mineral supplementation has been related to its effects on immunity and infectious disease. Various degrees of malnutrition, even of individual micronutrients, are known to markedly impair immune function. The extent to which subtle deficiencies of various micronutrients contribute to clinically significant infections is unclear. Several studies indicate that vitamin supplementation may improve various immunologic factors. However, other trials demonstrated an impaired immunologic response in participants who consumed larger-than-recommended quantities of certain nutrient supplements.

If you have an immune system deficiency or a weak immune system, discuss with your health care provider before taking any immune-system supplements. Also, please keep in mind that the term "boosting" is not a scientific term. The immune system is incredibly complicated and while certain aspects of it may be enhanced by a particular herb or dietary supplement, another aspect of it may be harmed. It is an extremely complicated topic.

There are several natural ways to maintain or boost the immune system:

1. DEEP SLEEP is one of the most important ways to boost the immune system. Chronic insomnia can lead to immune system deficiency. One good



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Vitamin Special Cold & Flu Prevention



D'Hist (reg \$29.64) Sale price: \$25.19



Echinacea Goldenseal (reg \$15.81) Sale price: \$13.44



Sinatrol (reg \$22.39) Sale price: \$19.03



Guai Aid (reg \$20.95) Sale price: \$17.81



Seasonal Defense: Boosting Your Immune System continued from page 4...

way to make sure you sleep deeper and longer is by taking a long walk each day. Sleep has been linked to balanced hormone levels (including human growth hormone and the stress hormone, cortisol), keeping weight down, clear thinking and reasoning, improved mood, and vibrant, healthy skin.

- 2. **MODERATE EXERCISE**, at least 3 times a week—preferably daily walks. Excessive and prolonged physical activity temporarily reduces the function of the immune system.
- 3. **REDUCE STRESS** any way you know. One of the best ways to lower your immune system and make yourself sick is stress. Similarly, negative emotions like worry and anger will also lower your immune system. So as you might expect, one good way to boost your immune system, as well as to improve the

general quality of your life, is to eliminate these negative emotions. Stress releases the hormone cortisol. Stress of any kind—emotional, physical, or psychological—quickly damages the immune system.



4. EAT MORE FRUITS AND VEGETABLES. They have flavonoids that have anti-bacterial and anti-viral activity. Avoid excessive sugar intake. Consume more garlic, onions, and culinary herbs such as cloves. Berries are rich sources of bioactive compounds, such as phenolics and organic acids, that have antimicrobial activities against human pathogens. Among different berries and berry phenolics, cranberry, cloudberry, raspberry, strawberry and bilberry especially possess clear antimicrobial effects.

- 5. **INGEST HEALTHY PROBIOTIC BACTERIA**. Probiotics have been defined as live microorganisms that (when ingested) have a beneficial effect in the prevention and treatment of specific medical conditions. These microorganisms are believed to exert biological effects through a phenomenon known as colonization resistance, whereby the indigenous anaerobic flora limits the concentration of potentially harmful germs in the digestive tract. Probiotics have also been found to be of benefit in reducing the odds of catching a cold or flu. These friendly gut bacteria may also boost the immune system.
- 6. **GOOD NUTRITION** is part of disease prevention. The key to a healthy immune system is to avoid processed products. Choose organic and free-range produce and pick foods that are as close to their original state as possible. Eat plenty of protein. Protein is a building block for a healthy body and immune system. Diets low in protein tend to be high in carbs which convert readily to glucose, spiking blood sugar and stressing the pancreas and the immune system. Worse yet is the impact of refined white sugar. You may be surprised to learn that sugar suppresses immunity. A study, using dental students, showed that drinking 24 oz of soda depressed the activity of neutrophils (the white blood cells responsible for fighting infection) by 50 percent. Research reported in the *American Journal of Clinical Nutrition* demonstrated that the immune-depressing effects of sugar last about five hours. Consuming refined sugar in all its hidden forms will contribute to an immune system that is constantly working below optimum levels.
- 7. REDUCE OR ELIMINATE SMOKING. Keep alcohol consumption low or moderate.
- 8. **DO YOGA**, or relaxed breathing and stretching, at least once or twice a week.
- HAVE REGULAR EXPOSURE TO THE SUN or take at least 400 units of vitamin D a day. Some people with little or no sun exposure may require up to 2,000 units a day.



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In addition to these tips for boosting the immune system, there are also certain herbs and nutrients that have an influence on the immune system. It is important to emphasize that the research in this area is quite incomplete, and we need to learn more before making any definitive recommendations. As a general rule, it is best to use these immune-system-boosting herbs or supplements for a limited time or with breaks, as opposed to uninterrupted daily use for months and years. Too high a dosage or taking these herbs for too long without a break may actually reduce immunity or have positive or negative effects that we are not yet familiar with.

Seasonal Defense: Boosting Your Immune System continues on page 6..

HCG Success...

Since introducing the hCG weight-loss program in January, Riordan Clinic participants have lost over 2,400 pounds! Here is one success story:

On April 8, 2011, a patient made the

commitment to do the Riordan Clinic hCG weight-loss program. She had researched the hCG program through our website, which gave her the information she was looking for and convinced her that this was the weight-loss program for her. She had known since the birth of her son that she really wanted to lose the "baby weight" she had gained during her pregnancy. Her son was now 3 years old, and she still was having a difficult time losing the pounds and getting back to her pre-pregnancy weight.

During the first week of the program she decided to receive vitamin C IV therapy which helped with her detox symptoms (headaches, no energy). She felt it even helped her sleep better that night.

Throughout the program her focus was constant. She prepared her food ahead of time. By cooking her meat in the right proportions and freezing it, having cut vegetables available in the refrigerator, and having plenty of bottled water available at any time, she felt prepared to succeed.

At the end of the first two weeks, the patient had lost 6.5 pounds. This realization motivated her to stay focused and she continued the rest of the program with even more determination. By the end of her weight-loss program, she had lost a total of 26.2 pounds. As she finished her program with such great success, she decided a second program was needed to allow her to reach her goal weight more quickly.

She found that her second round of the hCG program was easier to do because of the knowledge she had gained during her first round. She now knew what worked best for her body and how her body was going to respond.

Through both programs, the nurse educator helped her to remain focused. She continued to eat good protein, fruits, and vegetables, as well as drink plenty of water to replenish her body.

At the end of her programs, the patient lost a total of 39.4 pounds. SUCCESS! When asked how she felt about reaching her goal, she stated she felt like her previous self. She was proud of her body HCG Success continues on page 7... A lot of information about supplements can be found on our website and in lectures of our doctors.

Hundreds of supplements are claimed to give the immune system additional support during the winter. However, we will provide you with information on a few supplements that we have found to be especially effective for general immunity boosting, as well as treatment of specific ailments.

VITAMIN C

Vitamin C tops the list of immune boosters for many reasons. There has been more research about the immune-boosting effects of vitamin C than perhaps any other nutrient. Vitamin C supplements are inexpensive to produce, and it is available naturally in many fruits and vegetables. Vitamin C increases the production of infection-fighting white blood cells and antibodies and increases levels of interferon, the antibody that coats cell surfaces, preventing the entry of viruses.

Vitamin C has intrinsic antiviral and antibacterial activity and is beneficial in general immunity boosting, helping to ward off or prevent colds and flus, assisting the healing of wounds, aiding the body in fighting infection.

Unlike most animals that produce their own vitamin C, the human body does not synthesize any. Whether for general immunity boosting or for the treatment of a specific condition, one requires more vitamin C than our



contemporary diet supplies. The RDA (Recommended Daily Allowance) is easily obtained from fresh fruits and vegetables. Higher dosages such as 500 milligrams to 5 grams per day have been proven to be beneficial in the prevention of colds and general immunity boosting. However, vitamin C dosage of over 1 gram can realistically only be obtained through supplements.

If you are experiencing cold symptoms, we suggest a dosage of 4 to 5 grams taken during the day. If this treatment is started in the early stages of a cold, it will often fail to develop. If the cold has already developed, this treatment will usually lessen the effect of the cold and speed recovery.

VITAMIN E

This important antioxidant and immune booster does not get as much press as vitamin C, yet it is important to a healthy immune system.

Vitamin E stimulates the production of natural killer cells that seek out and destroy germs and cancer cells. Vitamin E enhances the production of B-cells, the immune cells that produce the antibodies that destroy bacteria. Vitamin E supplementation may also reverse some of the decline in immune response commonly seen in aging and has been implicated in lowering the risk of cardiovascular disease. In the Harvard School of Public Health study of 87,000 nurses, vitamin E supplementation was shown to cut the risk of heart attacks by fifty percent.

It is not difficult to get 30 to 60 milligrams every day of vitamin E from a diet rich in seeds, vegetable oils, and grains, but it is difficult for most people to consume more than 60 milligrams a day consistently through diet alone. Supplements may be necessary to get enough vitamin E to boost your immune system.



You need 100 to 400 milligrams per day, depending on your general lifestyle. People who do not exercise, who smoke, and who consume large amounts of alcoholic beverages will need a higher dosage.

CAROTENOIDS



Beta carotene increases the number of infection-fighting cells, natural killer cells, and helper T-cells, as well as being a powerful antioxidant that mops up excess free radicals that accelerate aging. Like the other "big three" antioxidants, vitamins C and E, it reduces the risk of cardiovascular disease by interfering with how the fats and cholesterol in the bloodstream oxidize to form arterial plaques. Beta carotene also protects against cancer by stimulating the immune cells called macrophages to produce tumor necrosis factor, which kills cancer cells. Beta carotene supplements also have been

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HCG Success continued from page 6...

and proud of herself. She expressed that she had more confidence which enhanced her self-image. Along with the weight loss, the patient learned how her body responded to food, what it liked and what it didn't like. She also learned how important it is to remain in control of her portion sizes. She continued her water intake of 64 ounces a day knowing that her body operated better when hydrated.

The patient continues to attend our support group at 5:30 on Tuesday nights, and she states it really helps her to realize what she has accomplished. Because of her successful experience with the Riordan Clinic's HCG Rx+ Program, she wants to help others by sharing her own experiences.

This patient is a great example of the weight loss success that awaits you with the Riordan Clinic HCG RX+ Program. 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!

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. Seasonal Defense: Boosting Your Immune System continued from page 6...

shown to increase the production of T-cell lymphocytes and natural killer cells and enhance the ability of the natural killer cells to attack cancer cells.

The body converts beta carotene to vitamin A, which itself has anticancer properties and immune-boosting functions. But too much vitamin A can be toxic to the body, so it is better to get extra beta carotene from foods and let the body naturally regulate how much of this precursor is converted to the immune-fighting vitamin A.

BIOFLAVENOIDS

A group of phytonutrients called bioflavenoids aid the immune system by protecting the cells of the body against environmental pollutants. Bioflavenoids protect the cell membranes against the pollutants trying to attach to them. A diet that contains a wide variety of fruits and vegetables, at least six servings per day, will help you get the bioflavenoids needed to help your immune system function properly.

ZINC



This mineral increases the production of white blood cells that fight infection. Zinc increases the number of infection-fighting T-cells, especially in elderly people who are often deficient in zinc, and whose immune system often weakens with age. The antiinfection effect of zinc is controversial. While some studies claim that zinc supplements can lower the incidence and severity of

infections, other studies have failed to show this correlation.

GARLIC

This flavorful member of the onion family is a powerful immune booster that stimulates the multiplication of infection-fighting white cells, boosts natural killer cell activity, and increases the efficiency of antibody production. The immune-boosting

properties of garlic seem to be due to its sulfurcontaining compounds, such as allicin and sulfides. Garlic can also act as an antioxidant that reduces the build-up of free radicals in the bloodstream.



SELENIUM

This mineral increases natural killer cells and mobilizes cancer-fighting cells. The best food

sources of selenium are tuna, red snapper, lobster, shrimp, whole grains, vegetables (depending on the selenium content of the soil they're grown in), brown rice, egg yolks, cottage cheese, chicken (white meat), sunflower seeds, garlic, Brazil nuts, and lamb chops.



OMEGA-3 FATTY ACIDS



A study found that children taking a half teaspoon of flax oil a day experienced fewer and less severe respiratory infections and fewer days of being absent from school. The omega-3 fatty acids in flax oil and fatty fish (such as salmon, tuna, and mackerel) act as immune boosters by increasing the activity of phagocytes, the white blood cells that eat up bacteria. (Perhaps this is why grandmothers used to insist on a daily dose of unpalatable cod liver oil.) Essential fatty acids also

protect the body against damage from over-reactions to infection. When taking essential fatty acid supplements, such as flax or fish oils, take additional vitamin E, which acts together with essential fatty acids to boost the immune system. One way to get more omega-3 fatty acids in your diet is to add one to three teaspoons of flax oil to a fruit and yogurt smoothie.

HOT FOODS FOR COLDS

Hot foods such as chili peppers, hot mustard, radishes, peppers, onions, and garlic contain substances called "mucolytics" (similar to over-the-counter expectorant cough syrups) that liquefy thick mucus that accumulates in the sinuses and breathing passages.



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HERBAL IMMUNE BOOSTERS

Herb and plant oils are some of the oldest medicines. Plant essences derived from herbs, seeds, and leaves were the first medicines of our ancestors. Oregano, lemon, cinnamon, frankincense, peppermint and eucalyptus oils are well known and effective against cold and flu.

Herbs that are well-known and effective in boosting the immune system include ginseng, Seasonal Defense: Boosting Your Immune System continues on page 8...

Are You Healthworthy? by Ron Hunninghake, M.D.

An aircraft is certified as "airworthy" when, through regular inspection, it is found to be "in a condition for safe operation." Airworthiness is achieved by risk reduction. Aircraft are engineered and inspected in order to reduce the risk of accidents to **ALARP** (As Low As Reasonably Practicable).

Why should we expect more from our aircraft than we do from our own bodies? Hence healthworthiness. Healthworthiness is a new concept being pioneered by the Riordan Clinic to help our patients ensure that their bodies are "in a condition for safe operation," and it is achieved through the regular inspection (biannual measurement) of "health markers."



Health Markers are standardized and replicable laboratory measurements of an individual's biologic and biochemical makeup that represent the functional health and adaptive capacity of that individual. They include a wide spectrum of laboratory measurements ranging from traditional risk factors such as hemoglobin A1c and LDL cholesterol to more recent nutritional reserve markers such as 25(OH)D and serum ascorbate levels (these are the technical names for vitamins D and C.) As many as 200 such markers can now be included in the biannual laboratory testing.

By regularly inspecting your key health markers, then adjusting and fine-tuning your personal treatment plan, you as a Riordan Clinic client can systematically and scientifically be guided to your own self-defined state of reduced disease risk and more optimal biologic functioning. This is HEALTHWORTHINESS!

Healthworthiness represents a new paradigm of medical care. Instead of waiting for disease and illness to appear, clients of the Riordan Clinic proactively benchmark, monitor, and systematically optimize their personal health markers. The creation and maintenance of health is no longer left to chance. The new question being asked is: "What can I do to increase my risk of staying healthy?"

The meteoric rise in disease care spending has sent health insurance premiums to unprecedented levels. Furthermore, sickness care insurance does nothing to compensate the lost productivity of a stressed and chronically ill executive or employee ... not even disability insurance can recoup these losses.

"A stitch in time saves nine." "An ounce of prevention is worth a pound of cure." These famous truisms are more relevant now than ever before as our country struggles with the rising tide of allergies, asthma, obesity, diabetes, chronic inflammatory illnesses, chronic viral infections, mental illness, heart disease, and cancer. Bold new thinking is needed to meet these mushrooming sickness care challenges.

Healthworthiness is that new concept of true *health care* by helping you systematically optimize your body's biologic pathways and proactively reducing risk of disease. Are you healthworthy?

The Riordan Clinic will be introducing a new executive healthworthiness program in the near future. Stay tuned...

astragalus, licorice root, goldenseal root, gotu kola, schizandra, lapacho, reishi mushrooms, dong quai, and yerba mate.

RESEARCH STUDIES

The search of research studies on vitamin and mineral supplementation demonstrated that only three published trials have evaluated the effect of a multivitamin and mineral supplement on clinical infection in apparently healthy samples of community-dwelling elderly persons.

One study found no difference in incidence of infection, but their trial was methodologically flawed and persons with possible micronutrient deficiency were excluded.

The second trial, which was performed in a sample of middle-aged persons, demonstrated a benefit in incidence of infection. However, this benefit was almost entirely observed in participants with diabetes, for whom the magnitude was dramatic. Correction of micronutrient deficiencies would be the most biologically plausible explanation for these results. The results of the study suggests that in certain diabetic samples, perhaps those with a high prevalence of micronutrient deficiency, daily use of a multivitamin and mineral supplement can decrease infection frequency.

Another 12-month study of 96 healthy elderly persons showed a statistically significant difference in the mean number of days with an infection-related illness (23 days vs. 48 days) in favor of the group that received the vitamin and mineral supplement. No reported results showed an effect on severity of illness (other than the number of days antibiotics were taken). In addition, participants in the treatment group had statistically significant improvements in several reliable indices of immune function. It should be reiterated that the infections prevented in this study were minor, primarily respiratory tract infections and influenza like illnesses. Nonetheless, because such infections are very common, they account for a large share of the productive days lost in industrialized societies.

By giving your body an adequate amount of the nutrients it needs to function properly, your immune system will be better equipped to fight off illness, whether it is a cold, the flu, or something more severe. Because each individual is different, please consult a physician before beginning any supplement regimen. Call **316-682-3100** and schedule an appointment with a Riordan Clinic doctor today.

In Gratitude ...

As a not-for-profit organization, we rely on many to make our vision a reality. **So many come together to provide our patients with a place of hope, health and healing.** Here are just a few we'd like to thank.

- All individuals and groups who have donated to our cause through financial support, including Allan Markin for his generous support of our research.
- Burch/Tittel wedding party and Crestcom International for event/ meeting space rental
- Our patients who took the time to complete our patient survey—We do read each and every one. This feedback lets us know about the co-learner experience at the Clinic so that we can make any necessary changes to make each visit better.



Healthful Hints from Dr. K ..

by Jennifer Kaumeyer, N.D. Note: Though we are not adding to the exercise tips this month, it is important to maintain your current exercise program. Keep walking daily and continue with your strength training exercises.

Healthful Hints: WHAT TO DO WHEN YOUR CHILD HAS A FEVER

There are many reasons why a child runs a fever. The body normally runs a temperature of 98.6°. Mild elevations can occur normally after exercise, with excessive clothing, from a hot bath or hot weather. An infant's temperature tends to rise after bottle or breastfeeding for a half hour or more. Most childhood fevers, in the range of 99–104°F (37.8°–40°C), are not harmful and are often due to a virus. Most fevers that stay under 100°F (38.3°C) are due to hot weather or overdressing.



Fevers are a symptom, not a disease. Sometimes a fever alerts us to a serious condition and is a cause for concern, while at other times it is not. A fever is the body's normal response to an infection. It increases the body's immune system functions by increasing the release and activity of white blood cells, interferon, and other substances. Therefore, it is important not to

prevent the body from this important infection fighting process. The naturopathic perspective tends to regard fevers below 102°F (39°C) as useful to the body to help us to eliminate toxins through sweating and to fight disease-producing organisms.

In general, the height of the fever does not relate to the seriousness of the illness; it is the behavior of the child that matters. A fever usually will not cause any symptoms until it reaches 101.5°–103°F (38.9–39.4°C). Fever causes no harm to a child until it reaches 106.7°–107.6°F (41.7 to 42.2°C). Only 4% of children with high fevers will develop febrile convulsions, which are generally considered harmless.

Children over 2 months of age can be given acetaminophen every 4 to 6 hours, but only if the child is uncomfortable and the fever is over $102^{\circ}F$ ($39^{\circ}C$). This will reduce the fever $1-2^{\circ}F$ ($0.5-1^{\circ}C$) within 2 hours, but only if the fever was low-grade to begin with. Do not give children (up to the age of 18) aspirin if they have chickenpox, sore throat, cold, or flu symptoms because it is linked to Reye's syndrome, a debilitating neurologic disorder.

TO TAKE YOUR CHILD'S TEMPERATURE

- **Rectal:** Lubricate the bulb of the rectal thermometer. Hold the baby on your lap or have the child lay on the bed. It is best to keep the baby in a position that allows for minimal movement. Insert the bulb one inch into the rectum. Hold in place for 3 to 5 minutes. Normal is 99.6°F (37.8°C), give or take 0.5°F.
- **Oral:** Some children can manage an oral thermometer by age 4 to 5. If in doubt, use an axillary or rectal temperature. Place the bulb of the thermometer under the tongue and hold for 2 to 3 minutes. Be sure to tell the child not to bite the thermometer. Normal is 98.6°F (37°C), give or take 0.5°F.
- **Axillary:** Place the bulb under the child's arm and hold the arm down for a minimum of 5 minutes. Normal is 97.6°F (36.5°C), give or take 0.5°F.

CALL YOUR PHYSICIAN

Immediately if:

- Child is under 2 months and has a fever
- Fever over 104°F (40.1°C)(oral)
- Child cries inconsolably
- Child cries if touched/moved
- Child's neck is stiff
- Child difficult to wake

Healthful Hints continues on page 10...

- Purple spots present on skin
- Child has difficulty breathing
- Child drools or can't swallow
- Convulsions occur
- Child is very lethargic
- Parent is very concerned

Bio-Center Laboratory at the Riordan Clinic

Did you know that the Clinic houses its very own laboratory? Since 1975, the Bio-Center Laboratory at the Riordan Clinic specializes in blood-based vitamin and nutrient testing. The function of our government-certified lab is two-fold: to provide Riordan Clinic patients with accurate, timely, state-of-the-art analysis, and to provide diagnostic services for doctors, clinics, and hospitals around the world.

As a medical professional, you may ask, "Why should I use the Bio-Center Laboratory?"

- Quality Control: Samples are processed at the Bio-Center Lab which offers a high degree of quality control.
- Faster Turnaround: Because of the on-site lab, samples are processed and results returned expediently.
- **Certified:** We are a CLIA certified reference laboratory. External certifications provide for exceptional reporting accuracy.
- Unique Tests: Bio-Center Lab performs unique tests on blood and urine that other laboratories do not perform: blood histamine, urine pyrroles, and plasma vitamin C by HPLC. This offers doctors a unique insight into helping identify patient needs.
- **Experience:** Our Lab personnel have more than 100 years of laboratory experience.

For more information on the Bio-Center Laboratory and its services or to see sample test results, visit our website at www.riordanclinic. org/laboratory.



Healthful Hints continued from page 9...

- Call your physician within 24 hours if:
- Fever lasts longer than 24 hours
- Fever between 101.5–104° (38.9–40.1°C)

Call your physician if:

- Fever lasts longer than 72 hours
- Child has a history of febrile seizures

TO KEEP YOUR CHILD COMFORTABLE:

- Encourage, but don't force fluids. Pedialyte is a good commercial product.
- Increase frequency of breast or bottle feeding.
- Avoid excessive clothing.
- Provide fresh air.
- Apply lukewarm wet compresses to forehead, nape of the neck, abdomen, back or feet.
- Sponge with tepid water or give your child a tepid bath.
- Keep child calm and resting as much as possible—no vigorous playing.
- Provide simple nourishing foods such as soup, broth or diluted juice.

- Burning pain when child urinates
- Child is less than 24 months or 2 years old
- Fever left for more than 24 hours and has now returned.



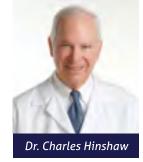
Lunch & Lecture Series 2011

Aachooo! Cold and Flu Prevention

Presenters







Date: Thursday, November 10, 2011 Time: 12:00 p.m. to 1:00 p.m. Cost: \$10—Lunch is included.

The season is upon us to begin thinking about protecting ourselves from the winter elements; unpack your sweaters, coats, scarves, and mittens and make sure you have the right dose of vitamins to help ward off the sniffles.

This is your chance to visit with all three of the Riordan Clinic doctors and discuss cold and flu prevention and treatment. The doctors will offer strategies for you and your family to help you through the season without getting sick.

Join us to learn more about this important topic.



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





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

Is Exercise the Missing "Nutrient" in Keeping Your Brain and Body Young?

Nearly everyone seems to be too busy or too tired to engage in regular physical activity – even when it comes to a daily walk – and as a result, exercise often becomes the "missing link" in many healthpromoting regimens.

Two recent studies clearly demonstrate the positive effects of physical activity on brain health and memory, as well as in slowing or reversing some aspects of the aging process.

Kirk I. Erickson, PhD, of the University of Pittsburgh, and his colleagues asked 120 seniors – most in their mid-60s – to participate in one of two physical activity programs for a year. Half of the participants engaged in instructor-led aerobic exercise, consisting of walking around a track three times a week. The subjects started with a 10-minute walk and increased it to a brisk 40-minute walk by the seventh week. Meanwhile, the other participants engaged in instructor-led stretching and toning exercises, including the use of weights and yoga.

All of the subjects underwent magnetic resonance imaging brain scans just before the study began, after six months, and again after one year. Erickson paid special attention to the size of the subjects' hippocampus, a part of the brain crucial to memory. The hippocampus shrinks about 1 to 2 percent yearly in older adults, and the loss of volume increases the risk of memory loss and other types of cognitive impairment.

Erickson found that the thrice-weekly walking led to an average 2 percent increase in hippocampal volume, "effectively reversing age-related loss in volume by one to two years." In addition, the walkers had higher blood levels of brain-derived neurotrophic factor (BDNF), a chemical known to stimulate the production of new brain cells.

In contrast, people who did the stretching and toning exercises had a 1.4 percent reduction in hippocampal volume, about an average decline for seniors. However, both groups did have improvements in "spatial memory" – that is, the ability to remember the physical layout of their environment, such as being able to physically navigate around a city.

In related research, Mark A. Tarnopolsky, MD, PhD, of McMaster University, Canada, and his colleagues studied the effects of exercise on laboratory mice bred for accelerated aging. These mice experience a relatively rapid deterioration of their cells' mitochondria, which breaks down food for energy. Typically, these mice become frail around eight months, the equivalent of 60 years in human terms.

But when Tarnopolsky exercised the mice regularly, they retained the hallmarks of young mice – even when they were the equivalent of human 60year-olds. The mice had more mitochondria in their cells (one of the benefits of exercise) and less mitochondrial damage.

Cell biologists generally believe that the aging process is largely related to a deterioration of mitochondria.

References: Erickson KI, Voss MW, Prakash RH, et al. Exercise training increases size of hippocampus and improves memory. *Proceedings of the National Academy of Sciences of the USA*, 2011: doi 10.1073/pnas.1015950108. Safdar A, Bourgeois JM, Ogborn DI, et al. Endurance exercise rescues progeroid aging and induces systemic mitochonrdial rejuvenation in mtDNA mutator mice. *Proceedings of the National Academy of Sciences of the USA*, 2011: doi 10.1073/pnas.1019581108.

Perspectives So-Called Dangers of Vitamins

A professional colleague, Andrew Saul, PhD, makes an important point: "If nutritional supplements are allegedly so 'dangerous,' as the FDA and news media so often claim, then where are the bodies?"

You see, there aren't any bodies. You can take lots of vitamins, minerals, and herbs, and the worst that



might happen is that you'll get an upset tummy.

Of course, you're far more likely to feel better and lower your risk of health problems.

According to Saul, not a single person died from dietary supplements in 2009, based on the latest information released by the U.S. National Poison Data System.

"The new 200-page annual report of the American Association of Poison Control Centers, published in the journal *Clinical Toxicology*, shows zero deaths from multiple vitamins; zero deaths from any of the B vitamins; zero deaths from vitamins A, C, D, or E; and zero deaths from any other vitamin," says Saul. "Additionally, there were no deaths whatsoever from any amino acid, herb, or dietary mineral supplement."

You can download the 200-page Poison Control report at http://www.aapcc.org/dnn/Portals/ 0/2009%20AR.pdf. The data discussed are found in Table 22B, pages 1138-1148.

I encourage you to read more of what Saul writes at http://www.orthomolecular.org/ –*JC*

Latest Vitamin D Suggestions Shift Toward Larger Amounts

How much vitamin D should you take? The latest word is substantially higher than December's paltry recommendation of 600 IU daily from the U.S. Institute of Medicine.

Cedric F. Garland, DrPH, of the University of California, San Diego, and his colleagues analyzed the supplemental vitamin D intake of 3,667 men and women and their blood levels of the vitamin. Garland and one of his coresearchers, Robert P. Heaney, MD, are regarded as among the top vitamin D experts in the world.

Study participants reported taking vitamin D in amounts ranging from 1,000 IU to 10,000 IU daily.

According to Garland, daily intake of 4,000 to 8,000 IU daily are needed to reduce the risk of several major diseases – breast and colon cancer, multiple sclerosis, and type 1 diabetes – by about half. Optimal blood levels of vitamin D – 25(OH) D – are in the range of 40 to 60 ng/ml.

"The supplemental dose ensuring that 97.5 percent of this population achieved a serum [vitamin D] of at least 40 ng/ml was 9,600 IU daily," wrote Garland.

This and larger amounts "are of the same magnitude as produced by a single ... dose of UV-B radiation, such as would be obtained during a few minutes of solar UV-B exposure near noon in midsummer, assuming nearly complete skin exposure." Garland wrote that taking "up to 40,000 IU vitamin D per day is unlikely to result in vitamin D toxicity." He added that toxicity would result from two factors, namely a high dose of supplementation combined with unusually high individual absorption of vitamin D.

Reference: Garland CF, French CB, Baggerly LL, et al. Vitamin D supplement doses and serum 25-hydroxyvitamin D in the range associated with cancer prevention. *Anticancer Research*, 2011;31:607-612.

MS Risk Influenced by Both Sun Exposure and Vitamin D Levels

A history of sun exposure is associated with a lower risk of "first demyelinating events (FDEs)" – typically a prelude to developing multiple sclerosis (MS), according to a study by Australian researchers. Vitamin D was also protective, but not to the same extent as sun exposure.

Robyn M. Lucas, PhD, of the Australian National University, Canberra, and her colleagues studied 216 people, ages 18 to 59 years, who had been diagnosed with an FDE, and compared them with 395 people without an FDE.

"Higher levels of past, recent, and accumulated leisure-time sun exposure were each associated with a reduced risk of FDE," wrote Lucas. That sun exposure, from age six to the present, lowered the odds of FDE by 30 percent.

Interestingly, higher actinic skin damage, a marker of excessive sun exposure, was associated with a 61 percent lower risk of FDE. Actinic skin damage is considered precancerous and increases the risk of squamous cell skin cancer.

People with high blood levels of vitamin D had only a 7 percent lower risk of FDE.

Řeference: Lucas RM, Ponsonby AL, Dear K, et al. Sun exposure and vitamin D are independent risk factors for CNS demyelination. *Neurology*, 2011;76:540-548.

Magnesium Levels Very Low in People with Type 2 Diabetes

Magnesium levels run low in people with type 2 diabetes, according to a study by researchers in Brazil.

Celia Colli, PhD, of the University of Sao Paulo, and her colleagues studied 51 patients with type 2 diabetes. Seventy-seven percent of them were deficient in magnesium, based on low levels of the mineral determined by intake, plasma levels, red blood cells, or urinary excretion.

Poor kidney function was strongly associated with low magnesium levels.

Lower magnesium levels were associated with poorer glucose tolerance.

"It is important to emphasize that there were no significant differences between non-medicated patients and those receiving insulin, metformin and diuretic drugs," Colli wrote.

The researchers also wrote that "low body concentrations of this mineral may influence the evolution of the disease [type 2 diabetes) and generate further complications."

Reference: Sales CH, Pedrosa LF, Lima JG, et al. Influence of magnesium status and magnesium intake on the blood glucose control in patients with type 2 diabetes. *Clinical Nutrition*, 2011: epub ahead of print. □

Foods Rich in B Vitamins Appear to Lower Risk of Developing PMS

B-complex supplements, particularly vitamin B6, have often been recommended to reduce symptoms of premenstrual syndrome (PMS). A new study has found that eating a diet rich in B vitamins seems to have a similar benefit – suggesting that poor eating habits may increase the risk of PMS.

Elizabeth R. Bertone-Johnson, ScD, of the University of Massachusetts, Amherst, and her colleagues analyzed data from the Nurses' Health Study II. None of the women had PMS symptoms when the study began. However, 1,057 women were diagnosed with PMS in the following 10 years, and they were compared with 1,968 women who did not have PMS.

Women who had the highest dietary intake of vitamin B1 (thiamine) were 25 percent less likely to develop PMS, and those with the highest dietary intake of vitamin B2 (riboflavin) were 35 percent less likely to develop PMS.

In this study, the other B vitamins were not associated with a lower risk of PMS, and neither were supplements.

Vitamin B2 is needed to make pyridoxyl phosphate, the active form of vitamin B6. Bertone-Johnson also cited a 2007 study in which 60 women were given 100 mg of vitamin B6, a drug treatment, or a placebo for three months. Only the vitamin B6 supplements led to a reduction in PMS symptoms.

An estimated 15 percent of women of reproductive age have PMS. Researchers believe that the cause may be related to an interaction of ovarian hormones and brain neurotransmitters, including serotonin and gamma-amino butyric acid.

Reference: Chocano-Bedoya PO, Manson JE, Hankinson SE, et al. Dietary B vitamin intake and incident premenstrual syndrome. *American Journal of Clinical Nutrition*, 2011: doi 10.3945/ajcn.110.009530.

Omega-3 Fish Oils Reduce Odds of Macular Degeneration

The "regular consumption" of omega-3 fish oils can greatly reduce the risk of developing age-related macular degeneration (AMD), the most common cause of blindness among seniors.

William G. Christen, ScD, of the Harvard Medical School, and his colleagues analyzed the dietary habits of 38,022 women health professionals. No one had AMD when the study began, but 235 cases were diagnosed during 10 years of follow up.

Christen reported that diets high in the omega-3 eicosapentaenoic acid (EPA) were associated with a 34 percent lower risk of AMD, and that high intake of docosahexaenoic acid (DHA) was related to a 38 percent lower risk. In addition, eating at least one serving of fish each week was associated with a 42 percent lower risk of AMD.

He wrote that omega-3 fish oils "may be of benefit in primary prevention of AMD."

Reference: Christen WG, Schaumberg DA, Glynn RJ, et al. Dietary omega-3 fatty acid and fish intake and incident agerelated macular degeneration in women. *Archives of Ophthalmology*, 2011: doi 10.1001/archophthalmol.2011.34.

Supplemental Curcumin May Reduce Colon Cancer Risk

Curcumin, an extract of the spice turmeric, appears to reduce a significant risk factor for colon and rectal cancer.

Robert E. Carroll, MD, of the University of Illinois, Chicago, and his colleagues, used curcumin to treat 41 patients with "aberrant crypt foci (ACF)," a precancerous change in the colon. All of the patients were smokers who were diagnosed with at least eight ACF during a colonoscopy. The patients were also assessed for their levels of two proinflammatory compounds, prostaglandin E2 (PGE2) and 5-hydroxyeicosatetraenoic acid (5-HETE).

The patients were then given supplements containing either 2 or 4 grams of curcumin daily for 30 days.

People taking 4 grams of curcumin had a significant 40 percent reduction in their numbers of ACF. The 2-gram dose of curcumin did not have any apparent effect. Nor did either dose of curcumin lower PGE2 or 5-HETE levels.

The curcumin supplements were 98 percent pure. However, most curcumin supplements on the market are standardized to 95 percent purity. Although absorption of curcumin is poor, the 4-gram

Nutrition *Reporter*

Quick Reviews of Recent Research

Zinc lozenges do reduce cold symptoms

In 1984 researchers published the first study showing that zinc lozenges reduced the length and severity of the common cold. Other studies have shown conflicting results. Now, in an analysis of 13 therapeutic studies and two preventive studies, researchers working in conjunction with the Cochrane Collaboration reported that zinc lozenges do have benefits – if people start taking them within 24 hours of their first cold symptoms. The researchers analyzed the responses of 1,360 people in those 13studies and found that zinc lozenges reduced the length of colds by an average of one day or more. Zinc also significantly reduced the symptoms. People taking zinc were also less likely to have cold symptoms after seven days, compared with people who did not take the supplements.

Singh M. Cochrane Database Systematic Review, 2011; 2:CD001364.

Quercetin helps in sarcoidosis

Sarcoidosis is a chronic inflammatory disease that most commonly affects the lungs, but can also lead to inflammation and swelling in other tissues, such as lymph nodes, the liver, eyes, and skin. Researchers from The Netherlands treated 12 sarcoidosis patients with 2,000 mg of quercetin daily and compared their responses with six patients who received placebos – all within a single 24-hour period. Quercetin reduced markers of inflammation and free radical stress, whereas placebos did not. People with higher levels of inflammation and free radical stress at the beginning of the study benefited the most.

Boots AW. Clinical Nutrition, 2011: epub ahead of print.

• Magnesium helpful in improving sleep Researchers at the U.S. Department of Agriculture treated 78 women and 22 men with sleep disorders, giving them either 320 mg of magnesium (in the form of magnesium citrate) or placebos for seven weeks. People taking magnesium supplements benefited from a 37 percent improvement in sleep

Curcumin and Colon Cancer...

Continues from previous page

supplements led to a five-fold increase in blood levels of curcumin.

Curcumin has antioxidant, antiinflammatory, and anticancer effects. It is the subject of numerous human studies in which it is being investigated as an adjunct to conventional cancer therapies.

Reference: Carroll RE, Benya RV, Turgeon DK, et al. Phase 2a clinical trial of curcumin for the prevention of colorectal neoplasia. *Cancer Prevention Journal*, 2011;4:354-364.

quality, based on their scores on a standardized test. In addition, people taking magnesium had a significant decrease in C-reactive protein, a marker of inflammation. The researchers noted that 58 percent of the subjects were not consuming recommended amounts of magnesium when the study began.

Nielsen FH. Magnesium Research, 2010;23:158-168.

• Omega-3 fish oils ease depression in seniors

In Italy, researchers treated 46 women, ages 66 to 95 years, with fish oil supplements. The supplements provided 2.5 grams of omega-3s, consisting of 1.67 grams of eicosapentaenoic acid (EPA) and 0.83 grams of docosahexaenoic acid (DHA). After two months of supplementation, the subjects had significantly fewer depressive symptoms and a higher overall quality of life.

Rondanelli M. Nutrition, Health and Aging, 2011;15:37-44.

Trans fats increase risk of depression

The consumption of trans fats can increase the risk of depression, according to a team of researchers from Spain and The Netherlands. In studying 12,000 people, who had an average age of 37 years, those with high trans fat intake were 42 percent more likely to suffer from depression, even if they consumed a Mediterranean-style diet.

Sanchez-Villegas A. *PLoS One*, 2011: doi 10.1371/ journal.pone.0016268.

• Vitamin E supplements reduce ALS risk Researchers at Harvard University studied more

than one million people, of whom 805 developed amyotrophic lateral sclerosis (ALS) at some point between 1986 and 2005. People taking vitamin E supplements for at least five years had a 36 percent lower risk of ALS, also known as Lou Gehrig's disease.

Wang H. American Journal of Epidemiology, 2011;73:

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