

In Good Hands

A Free Monthly Newsletter For The Friends and Patients of: Gordon R. Gensel, DC, CNC
www.genselwellnesscenter.com

“The aim of life is self-development. To realize one's nature perfectly - that is what each of us is here for.” ~ Oscar Wilde

A World Without Wrinkles Or Skin Cancer?

...Have Scientists Finally Discovered

How To Reverse Damaging Effects Of The Sun?

- ✓ Researchers discover how a key enzyme repairs sun damaged DNA. (“The two subatomic particles healed the damage in a few billionths of a second.”)
- ✓ Will this lead to cures for premature aging and skin cancer from the sun?
- ✓ Is Acetaminophen* a trigger for teen asthma? (Study shows even once a year use may worsen asthma in teens and children.) *The best-known brand name for acetaminophen is Tylenol.
- ✓ Can Chiropractic care help chronic “whiplash” injuries?
- ✓ How to help your children get a good night’s sleep as they start a new school year. (There is one *technical* problem you must fix!)
- ✓ Find out what UCLA researchers have to say about STRESS and why lessening it may be the most important thing you ever do.
- ✓ Are your children on the internet? Find out what Google’s CEO said about them...



Monterey – Have you ever gotten a sunburn? If you have, you are not alone. Most people, at one time or another, have played in the sun a little too long and turned a sweet shade of pink or even red. Until recently, the long-term damage done by sunburn was not fully known.

Nowadays, most people now know the effects of a sunburn come out years later in the form of premature aging— like leathery skin, wrinkles and “sun spots.” Even worse, overzealous sunbathing can cause skin cancer. But, what if there was a way to completely erase all the damage done to your skin by the sun? What if you could wipe out wrinkles, sun spots, rough skin and even skin cancer... and do it in a fraction of the time it takes you to blink an eye?

Wouldn't That Be Amazing And One Of The Best Scientific Discoveries Ever?

Well, scientists haven't quite discovered the ultimate cure for skin related aging and cancer yet... but with *this* incredible discovery, it looks like they are very close...

Here's the discovery: Researchers have long known humans lack an enzyme that most other animals and plants have that reverses damage done by the sun.

Now, for the first time, researchers have actually seen how this enzyme works... on the atomic level... to repair sun damage. According to an article published in *physorg.com*, “*The discovery holds promise for future sunburn remedies and skin cancer prevention. In the early online edition of the journal Nature, Ohio State University physicist and chemist, Dongping Zhong, and his colleagues describe how they were able to observe the enzyme called photolyase inject a single electron and proton into an injured strand of DNA. The two subatomic particles healed the damage in a few billionths of a second.*”

According to the article, Ultraviolet (UV) light damages cells by causing bonds in the DNA to form in the wrong places. Photolyase seems to break up the “wrong” bonds and “reset” them so atoms in the DNA can move back to their original positions.

Photolyase is present in all plants and most animals... even insects and bacteria. Only mammals are missing this enzyme. According to the article, *“Now that researchers know the mechanism by which photolyase works, they might use that information to design drugs or lotions that heal sun damage, Zhong said. Normal sunscreen lotions convert UV light to heat or reflect it away from our skin. A sunscreen containing photolyase could potentially heal some of the damage from UV rays that get through.”* But until modern science actually comes up with the solution – the best thing to do is not get a sunburn.

Does Acetaminophen (Tylenol) Cause Asthma In Teenagers?

According to research reported in *WebMD Health News* August 13, 2010...*“Even once-a-month use of acetaminophen -- the best-known brand name is Tylenol -- may trigger asthma in teens. Teens using acetaminophen at least monthly had 2.5 times the asthma risk of non-users. Once-a-year users had a 43% increase in asthma risk. The findings come from a study of some 323,000 13- and 14-year-olds from 50 nations by Richard W. Beasley, MD, Professor of Medicine at the Medical Research Institute of New Zealand in Wellington, and colleagues.”*

This is the first study to link acetaminophen use to asthma. However, researchers say this study does not prove acetaminophen causes asthma because it may just be that teenagers and pregnant women who are predisposed to getting asthma are more likely to take the drug.

How Your Brain Responds To Social Stress Can Influence Your Health!

Everyone experiences social stress on some level. Yes, even the person who seems so cool, calm and collected gets nervous about things like job interviews, new social settings, giving a speech, etc. Heck, performers have been known to actually get physically ill and vomit before going on stage. The more researchers discover about stress, the more we understand how bad it

actually is. For example, it has been reported in an August 9, 2010 press release that UCLA researchers have

discovered how your brain reacts to social stress can influence your body’s immune system and affect your health. According to the press release, *“individuals who exhibit greater neural sensitivity to social rejection also exhibit greater increases in inflammatory activity to social stress. And although such increases can be adaptive, chronic inflammation can increase the risk of a variety of disorders, including asthma, rheumatoid arthritis, cardiovascular disease, certain types of cancer, and depression.”*

Two things are very important here: (1) It is not the situation or event that causes the problem... it is your reaction to it. Some people look at certain situations as a challenge – while other see the same situation as a stressful nightmare. And (2), this is just more proof of how closely your mind and body are connected. Self-help guru, Napoleon Hill, said decades ago that we all become our dominant thoughts. It looks like science is proving him correct. Bottom line: if you are not thinking healthy – you cannot be physically

Can Chiropractic Care Help Chronic “Whiplash” Injuries?

With over 10 million car accidents each year – chances are, at some point in your life, you will be involved in one. And many car accidents result in whiplash injuries. Whiplash is a term used to describe an injury that occurs when your head is suddenly moved. This can occur when you either stop too fast – or accelerate too fast. Either way, your head “jerks” and can injure the soft tissue (muscles, tendons, ligaments) and/or spinal joints of your neck.

Some people suffer whiplash symptoms such as pain, stiffness, reduced motion and headaches immediately after a car crash. But for many, these symptoms come on days or weeks later. According to research published in the November 1996 issue of *Injury*, *“Forty-three percent of patients will suffer long-term symptoms following ‘whiplash’ injury, for which no conventional treatment has proven to be effective.”*

The research went on to say, *“A retrospective study was undertaken to determine the effects of chiropractic in a group of 28 patients who had been referred with chronic ‘whiplash’ syndrome... Twenty-six (93 percent) patients improved following chiropractic treatment.”*

The publication also said more research is needed.

healthy.

And don’t forget, if you ever have any questions or concerns about your health talk to us. Contact us with your questions. We’re here to help and we truly enjoy participating in your lifelong good health.

**Help the
Monterey County
Food Bank...**

**and get a free Chiropractic
Adjustment!!!**

Details in next newsletter!

Weight Loss

It has been long held that in order to lose weight, you must create a calorie deficit. If you cut back 500 calories a day, you should lose about 1lb per week. Also, if you exercise to burn off 500 calories a day you should lose approximately 1lb per week. Do both, you could lose 2lb per week. This is the basic premise behind the “calories in, calories out” mantra. The problem with this way of thinking is that it’s based on the assumption that all calories are burned with 100% efficiency and that the body does not waste energy (calories) no matter what the source.

We consume three types of calories (macronutrients) that can be burned for energy: carbohydrates, proteins, and fats. As most know, you can add your carbohydrates, fat and protein consumed per day to get your total calorie intake for that day. Portion control can be quite time consuming and dictates unrealistic rules which set most people up for failure. In addition, when most people start counting their calories and following a low calorie diet, it slows their metabolism and in addition their protein intake drops too low which increases their susceptibility to infections, joint, bone and muscle disorders.

In order to have successful weight loss, you must understand what your food is made of and how it’s used by the body. Protein can come from plant based sources like beans, seeds, nut, sprouts, and quinoa or it can come from animal based sources like fish, eggs, chicken, turkey and red meats. Carbohydrates are found in breads, potatoes, pasta, rice, fruits and veggies. Fat comes from your cooking oils such as olive oil, canola oil, butter and coconut oil/butter but also comes from avocados, nuts, seeds, and meats. For more information about how to choose the best proteins, fats and carbohydrates, please refer to our December 2009 “Eating Clean” newsletter.

Carbohydrate is good for nothing but burning. It’s like gasoline – you can either burn it now or you will store it in your tank to burn later. With carbohydrates, it is a fact that if you consume more than your body can use, your body stores them for later (which contributes to weight gain). When carbohydrates are stored in your liver and muscles, it is called glycogen. When the liver and muscles cells cannot store anymore glycogen, it is turned into fat. When your body needs a quick boost of energy, it converts glycogen into energy. When it needs a prolonged burst of energy, it converts fat to energy.

Protein and fat, however, have many uses in the body in addition to generating energy. Protein is used to build muscle cells, to create and repair cell membranes in all cells, and to create enzymes that make it possible for all your body functions to occur. Fat transports certain nutrients that are not soluble in water, acts as a precursor to a number of hormones, insulates nerve cells to ensure that electrical charges are carried properly, and, like protein, is used to create and repair cell membranes. Furthermore, fat and protein can both be broken down and recombined into whatever form the body needs.

So you might consume muscle protein from a cow, and the body might break it down and rearrange it to make a digestive enzyme, or incorporate it into the membrane of a brain cell, or use it to make hemoglobin. Protein and fat are like wood – you can certainly burn it for energy, but you can also use it to build a house, or grind it up and make paper out of it.

When fats are burned, they produce ketones. Ketones are fat molecules that are incompletely burned. These ketones can be burned for further energy by certain organs or can be excreted through the urine, breath and sweat. In fact, the heart and brain in particular will suck up ketones to use as fuel whenever they are present. But if more ketones are produced than can be used by the body, which is usually when fat is the primary source of calories, then the body excretes them. There is no storage mechanism for excess ketones. It’s like burning wood and tossing out most of the charcoal because there’s no place to keep it – a waste of energy. If you are overweight, wasting energy is exactly what you want to do.

A few concepts about weight loss:

1. We observe that people who consume fewer calories have an adverse result of a slower metabolism thus burning fewer calories. The theory behind this is the body has a survival mechanism that is trying to conserve energy and therefore prolonging the chances of survival during famine. On the contrary, we also observe that people who consume more calories actually burn more calories (increase their metabolism), *but only on low-carbohydrate diets*. Remember, carbohydrates are either burn for energy or are stored. The body won't waste carbohydrates!
2. We realize that portion control is an issue for many people. If you feel portion control may be what's holding back your weight loss, we suggest you do control your carbohydrate intake. Most importantly, cut out the carbohydrates that provide little nutritional value such as white sugar, white flours, donuts, chips, pop, fruit juice, products with high fructose corn syrup. Limit all breads, pastas and rice (even the healthier versions) but do consumer lots of whole fruits and vegetables. Cut out your highly saturated fatty meats such as bacon, sausage and other cured meats.
3. We would be remiss, if we did not include exercise in the weight loss equation. While there are many more benefits from exercise than simply weight loss, exercise is not the main topic for this newsletter. For more information on exercise, please refer to our October 2008 "Aerobic Training", November 2008 "Flexibility" and December 2008 "Strength Training" newsletters.
4. What are you made of? Weight scales determine only the total body mass. They do not tell you whether that mass is fat, muscle or water. Body composition is more important than your total weight in determining fitness and health. For more information on body composition, please refer to our February 2010 "Body Composition" newsletter.
5. Lose weight in a healthy way by making the necessary lifestyle changes in order to have long term success with weight loss. If you need help making lifestyle changes you can call our office to set up an appointment so we can help you be successful.

Did You Know?... The Human body is comprised of various body organs, cells and tissues which are functioning in a synchronized and cooperative manner. Each organ has its own very specialized function. Following are the significant facts about the different organs and their functioning: • The purpose of eyebrows is to keep sweat from running into the eyes • Hair is the second fastest growing tissue on the body. Bone marrow is the first. • Hair is made out of the same substance as fingernails • Around 20% of the oxygen you breathe goes to your brain • You cannot properly tickle yourself as your brain knows that you are touching yourself and will not react in the same way as if something foreign were touching you • An adult human body requires around 90 pounds of oxygen per day • The heart produces enough pressure that it can squirt blood at a distance of over 35 feet • The human heart beats an average of 35,000,000 times per year – thus, the average human heart beats around 100,000 times per day • The volume of tears on the surface of our eyes is 7 micro liters (seven one thousands of a milliliter) when resting • Most common solid tissue to be transplanted in the world is the cornea.

Tip Of The Month - The "Technical" solution to kids getting a good night's sleep...and... why Google's CEO thinks your children may have to change their name.



Everyone wants the best for their children. And that's exactly why you will find this information so important...So let's jump right in with the "technical" solution to kids getting a good night's sleep. Studies have recently shown kids are using forms of technology – such as cell phones, gaming systems and computers – late into the night. This not only keeps them up late, it can excite the brain so even when they try to sleep, it can be difficult. One of the worst things you can do right before bedtime is to surf the internet or play a video game. Your brain gets all "charged up" and it takes some time for it to relax so you can sleep soundly. "Any factor that deteriorates the quality or quantity of sleep will lead to difficulty with school performance and behavior problems," said William Kohler, MD,

Medical Director at Florida Sleep Institute. “When children stay up late at night texting in bed or playing computer games, they are increasing their risk for neuro cognitive problems.” According to an article published August 11, 2010 in *Science Daily*, “having a regular bedtime was the most consistent predictor of positive developmental outcomes in four-year olds. In this 8,000-person sample, language, reading and math scores were higher in children whose parents reported enforcing regular bedtimes.” It is important to keep the same bedtime and wake time seven days a week. Staying up late and sleeping in on weekends can make it difficult to re-adapt during the week. Constantly shifting sleep patterns is not a good idea. Maintaining a regular bedtime routine is important; doing the same thing every night like changing clothes, washing up and brushing teeth will signal the brain that it’s time for sleep. Exercise, caffeine, and sugary foods should be avoided. The room for sleeping should be quiet, dark and kept cool... below 75 degrees. Technology should not be used for at least an hour before bedtime. According to the *Science Daily* article, “Insufficient sleep and poor sleep habits have been linked to health problems such as obesity, cardiovascular disease, diabetes, depression, moodiness or irritability, reduced memory functioning, and delayed reaction time.” **What Google CEO Says About The Internet And Your Children** – Google’s CEO, Eric Schmidt, recently told the Wall Street Journal that young people should be entitled to change their names to escape their misspent youth that is documented on the internet through sites such as Facebook. According to an article in the *telegraph*, Mr. Schmidt said, "I don't believe society understands what happens when everything is available, knowable and recorded by everyone all the time.” The article went on to say that Schmidt believes that one day, young people will be able to change their names to “distance themselves from embarrassing photographs and material stored on their friends’ social media sites.” Maybe a good rule for everyone – not just children - is to never say, do, or post anything on the internet you would not want to run as the lead story on the nightly news.

**Remember, we’re always here, using the miracle of Chiropractic and Nutrition
to help your body heal and maintain the health you deserve.**

This information is solely advisory, and should not be substituted for medical or chiropractic advice. Any and all health care concerns, decisions, and actions must be done through the advice and counsel of a healthcare professional who is familiar with your updated medical history. We cannot be held responsible for actions you may take without a thorough exam or appropriate referral. If you have any further concerns or questions, please call our office at 831-333-1513.