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**Coming up in the next Issue... Feeling Good**

Nature's Source News is written and edited by Nature's Source staff

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IN THIS ISSUE

## Anti-Aging

### Your Genes and the Yang Ping Diet

Genetic Diversity is at the level of individual genes and provides the mechanism for how populations have adapted to an ever changing environment. Is it anti-aging we're after? Perhaps what we are trying to do at the level of the gene is provide the environment so that our genes express themselves in a way that minimizes the negative effects of aging.

Four years ago I spoke to Yang Ping, a researcher at York University who was a medical doctor in China and received his Ph.D. in Canada (and is a great chef!). Dr. Ping revealed some very interesting information during that discussion regarding his nutrition research in China. His research pertained to chromosome damage and diet. Chromosomes are where the genetic material (DNA) is located and is susceptible to damage from many factors. Nutrition is a key factor.

### What is proper nutrition?

Depending on who you ask, you'll get a variety of different answers. Some will say that it's about eating several cups of vegetables, low Glycemic Index grains (those that stimulate less insulin), fruits that are in season, adequate protein, some healthy fats and

- continued on page 2 -

### HYALURONIC ACID: "Plastic Surgery in a Bottle"

For centuries man has been searching for the fountain of youth, a search that shows no promise of ending any time soon. It's no secret that with the increased aging of the baby boom generation the market for anti-aging products will continue to soar. Much of that market will be focused on surface treatments such as plastic surgery, botox, and the usual cosmetic cover-ups.

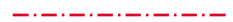
However beauty still comes from within and in the area of minimizing the visible effects of aging, taking care of one's inside is critical. In this case we are focusing on the production and preservation of a molecule called Hyaluronic Acid (HA). This is a little known molecule that does not have the press it deserves. HA is produced by fibroblast cells within our connective tissue. It is most often described as being the "mortar" between the "bricks", our skin cells being the bricks in this analogy. Its primary function is to hold water giving it structure. As a testament to this ability, one gram of HA will hold up to six quarts of water in the body! If you're concerned about water retention, forget it! HA gels water causing it to puff up the skin and eyes, (which is why HA has also been shown to improve vision). Bottom line, it's the reduction in HA that produces most of

the visible signs of aging, as the so called "bricks" start to become loose and sag with the loss of the structural protection that HA serves.

Hyaluronic Acid is also instrumental in providing the necessary cushioning of joints as it is the primary component making up the synovial fluid. It is the loss of this fluid/HA cushion that is associated with the bone wear in arthritis causing the pain and inflammation. In fact orthopaedists and dermatologists have used the injectable form of HA for decades making up for the loss by putting it into joint spaces and skin. The only drawback for the consumer was that until recently HA was not available in a form that was readily available for oral consumption, (HA is a very large molecule). The most observable effects of HA can be seen in babies with their pudgy soft skin or from the healthy glow often seen in pregnancy when women are producing large amounts of HA naturally.

HA is widely available in supplement form today where it is indicated for the maintenance of youthful looking skin, joint function and vision. Now when it comes to HA supplementation, size does matter. Many doctors still maintain that oral forms of HA are not well absorbed. The crucial element lies in the molecular weight of the particular form of HA. Synthetic HA is about 2 million Daltons, HA from rooster combs are about 500,000 Daltons while that derived from chicken sternum comes in at between 1500-3000 Daltons. The lower the better. Make sure that extra vitamin C is taken with your HA as it aids in its absorption. To sum up the most absorbable forms of oral HA come from chicken cartilage, so those who are vegetarian or are allergic to chickens would most likely want to avoid it.

Mario Alonzi, B.Sc. is a staff member at Nature's Source. He can most often be found at the Mississauga or Etobicoke stores.





**- Yang Ping Diet continued -**

plenty of fiber. According to Dr. Ping, damage to genetic material is partly related to how many different foods you eat. Dr. Ping suggests eating 35 different foods per day to minimize damage to this genetic material. For example if you had some olives, tomato, cheese, onions, spinach and some chicken you've knocked off 6 of the 35. Well, I've modified it down to 25 foods a day to attempt to suggest a more realistic target. A diverse diet supplying a wide variety of whole foods is part of the anti-aging protocol that I suggest. You can reach for growth hormone enhancers, collagen mimickers, testosterone boosters, and youth promoting fantasies – but all are secondary to diet and exercise.

Take a look at your diet and count how many different foods you eat and then subtract one for every "bad food" you eat. The bad foods are simple – if you know you should not be eating it, count it as a bad food. Your health just may depend on how many different foods you eat, not how many cups of one food you eat.

*George Tardik BSc., RHN, RNCP, (ND candidate) has been practicing nutrition for 7 years. He's been featured on CBC's Newsworld, Marketplace and Sports Journal. George specializes in metabolism, weight-loss, diabetes and sports nutrition. He practices out of Nature's Source.*



**A Few Years Less OR A Few Years More?**

Depending on what stage we are at in life we either want to look younger or feel younger; either way we want to be healthy on the outside and on the inside. The cosmetics industry has made a lot of money by trying to make us look younger and age gracefully from the outside. On the flip side the natural supplement industry is trying to make us feel younger from the inside. Aging is a natural process of our bodies that we cannot stop, only hope to slow down. The problem I see with trying to look younger strictly from the outside is that usually our bodies do not keep up and people can still tell our age from our movements and stature. So the question arises – Do you want to look a few years younger? or, Do you want to live a few years longer? or, Is it possible to do both?

Aging is a process of our bodies whereby proper cellular growth and repair slows down generally due to improper nutrient supply needed for cellular growth – as the saying goes "You are what you eat."

Our bodies are constantly regenerating by building new cells. Would you rather provide the proper nutrients for these new cells to form to their full potential while pushing out dying cells or, on the flip side, hydrate old cells to live longer with topical moisturizers? You can get nutrients such as essential fatty acids (EFAs), Vitamins A, C, E and minerals like selenium and silica either in topical preparations or for internal use. Taking them topically will generally affect the local area whereas internally thru food or supplementations will give full body support. It is also important to know that there may be internal damage in areas that you don't know about but these can be repaired and restored by taking supplements internally, because of their total body utilization. Silica, hyaluronic acid (HA) and Vitamin C all are common topical nutrients used for wrinkles which have been shown to be quite effective. All three of the nutrients taken internally will not only help tighten the skin and reduce wrinkles but will also help strengthen hair, nails, tendons and ligaments as well as improve blood vessel integrity. Vitamins A and E along with EFAs, all



**BONE HEALTH**

common ingredients in moisturizers, will all do a very good job hydrating the skin and keep it looking fresh but if all these are taken internally they will also help boost immunity, maintain proper cholesterol levels, and act as potent antioxidants against chronic disease.

Proper lifestyle will always help to combat the body's aging process. Getting proper rest and good sleep will help the body to repair itself quicker, exercise will help facilitate drainage and improve toxin removal while proper diet will provide basic nutrient support.

Remember, topical cosmetics can help take a few years off on the outside and keep you looking younger but internal supplementation can help you to both look and feel younger and may even help to provide not just more years but more quality years to your life.

*This article was provided by Baljinder S. Chhoker, a Naturopathic Consultant for Nature's Source. Baljinder can be reached at 905.257.1655 for more information.*



## The Essentials of Antioxidant Protection WHAT DOES NATURE SAY?

Have you ever sat down and really embraced the enormous amount of wisdom and power that is contained in nature? Have you ever really observed the natural healing properties and protection offered by fruits and vegetables as some of the greatest providers of essential antioxidants for beautiful skin and a healthy body?

Since we spend every weekend out shopping at our local grocery store why not begin your journey into a new antioxidant program using fresh, wholesome foods, nutritionally rich in minerals, vitamins and oils as the platform for your optimal health benefits? Not only will you start to look and feel better but what better way to get started than by beginning with food because we all love to eat? So let's look at the nutritional value of foods to reveal the relevance that they have in our diet.

First of all what are antioxidants and what are phytochemicals and how do they protect us? Antioxidants are substances that significantly defend against free radical damage to cellular tissue. They protect against premature aging and they can stop the deteriorating process of disease. Phytochemicals are literally chemicals that are extracted from plants. They provide the rich colour and taste in vegetables and fruits and many are known antioxidants. These phytochemicals (such as plant sterols) help to stimulate and build a healthy immune system, fight off disease, detoxify and repair cellular damage, and rejuvenate cells into healthy new ones. Organic fruits and vegetables often have a higher concentration of antioxidants and will be free from herbicides and pesticides and are often much more robust in flavor. Fruits and Vegetables Genetically Modified (GMO) may look good but they may not have the same mineral and vitamin content. Look for your nearest grocery store that will provide you with GMO free products.

There is a wide variety of antioxidants available such as Vitamin C, a powerful antioxidant that is ranked on the honour roll for its antioxidant protection and performance. Vitamin C is a critical antioxidant for protection from developing cancer, heart disease, lack of collagen production, poor gums, reduced vascular circulation and many other degenerative diseases from free radical damage. Our world is full of toxins and we are exposed daily to this battle against cellular damage from the effects of pollution, pathogens, viruses, bacteria, second hand smoke, exhaust fumes, rancid oils, and poor eating habits. It is easy to see that it is vital to include antioxidants in our diets.

There is a long list of nutrient-rich veg-

etables and fruits that contain powerful healing vitamins and minerals including phytochemicals but we will just list a few. Broccoli, carrots, red peppers, spinach, vegetable juices, brussel sprouts, cauliflower, radishes, turnips, watercress, green peppers, green beans, tomatoes, carrots, cabbage, and sweet potatoes are antioxidant-rich vegetables. For fruits we have apricots, cantaloupe, grapefruit, kiwi, oranges, grapes, blueberries, strawberries, raspberries, pomegranate, apples, and cranberries. We have allium vegetables garlic, onions, leeks, and scallions which are rich in sulphur, and are beneficial for reducing histamine levels and inflammation and moderating homocysteine levels. Soya protein is another phytochemical and an excellent choice of natural estrogen that is great for balancing hormonal levels. Soy is a source of important isoflavones that can help protect against osteoporosis and bone loss.

Most vegetables and fruits are alkalizing to our bodies. For disease prevention and good health it is recommended that our diet combine 60% alkaline and 40% acid forming foods.

### Stress plays a role

There is one more critical component that relates to the anti-aging process and it is known as "stress". The effects of stress on our body can be detrimental and can often be reflected in our outer facial appearance. Tight skin, sagging skin, and blemishes are all signs that the epithelial layer of our skin is lacking the nutrients, water and rest it needs in order to look vibrant and healthy. Facial lines begin to appear around the eye, mouth and forehead when proper care is not maintained both internally and externally and when the body is subjected to a significant amount of stress over a long period of time. The cosmetic industry spends billion of dollars each year advertising products that try to keep us looking our best investing in facial creams, toners, and soaps to improve the quality and elasticity of our skin, but without a constant supply from our foods of vitamins and minerals and oils to lubricate and moisturize the skin, eventually the skin will begin to break down and begin to show the signs of aging.

So if it is great skin you want or to reduce those wrinkles or get that excellent complexion, exercise and eat right, and start an antioxidant program to slow down the aging process. And one more thing, a positive and cheerful attitude will decrease mental stress, increase work efficiency, and enhances and elevate the mood and the spirit. So remember to make it a priority to find time, even a half-hour a day, to sit quietly and learn to relax. Inhale and exhale deep breaths to improve your oxygen intake and create a calm and peaceful balance in your mind, body and spirit.

*Yvonne Horvat is a Nutritionist at Nature's Source. She is available for consultations; call 905-502-6789.*

## SPORTS ZONE

### Osteoporosis and Exercise

There is great debate in scientific literature pertaining to type and frequency of exercise needed to provide a therapeutic effect on muscle mass and a corresponding increase in bone density. It is clear that a variety of programs have the ability to elicit meaningful health benefits in adults and children. The key idea or a common theme in all the research reviewed is consistency.

### Consistency gives long lasting results

When it comes to exercise, time seems to be the largest obstacle. Pharmaceuticals and dietary supplements seem to take precedence over the most powerful preventative measure relating to Osteoporosis – exercise. The mere thought of heading to a fitness centre filled with grunting "bodybuilder" types sends shivers down the spines of many North Americans. Unfortunately, for those that do enter into a fitness program, there is often great uncertainty of what exercises are key to optimizing and maintaining bone health.

Exercise has been shown to be site-specific. Exercises on the right side of the body do not have any effect on the bones on the left side. Since the hips, wrists and spine are the areas sensitive to bone density loss, exercises should be targeted towards these specific areas.

### Step it up a notch.

Weight training 2-3 times per week is needed to improve and maintain optimal bone density. However, the mechanical force placed upon the bones needs to be increased at times, to go beyond the normal force the body has become accustomed to. Lifting very light weights may be needed in the beginning, but the weight needs to be increased to increase bone density. A qualified physical therapist or kinesiologist should provide the appropriate increments specifically for you.

*George Tardik B.Sc. (Hon), RHN, RNCP, (ND candidate) has been counseling in sports nutrition for 8 years. Appointments can be made by calling Nature's Source at 416 242 8500.*

## SPORTS ZONE



## NEW PRODUCTS

### BENFOTIAMINE An AntiAGEs Supplement

Advanced glycation end products (AGEs) are toxic byproducts where inappropriate reactions occur between sugars, aldehydes and proteins. This leads to cross linking of proteins and sugars, which makes proteins stiffer and less elastic. AGEs damage protein structure, inhibit protein function and trigger inflammatory reactions. Eventually this leads to diseases such as diabetes, heart disease, Alzheimer's, and more. AGEs specifically attack collagen, the most abundant protein in the body which makes up a significant part of skin, bones, cartilage, teeth and the cardiovascular system. In fact, the best way to describe AGEs chemistry is what we call the browning effect like when we roast a chicken or toast bread. This browning effect occurs everyday in the body. Fortunately there may be a product that may counteract this called benfotiamine.

Benfotiamine is a fat soluble form of vitamin B1 thiamine. It is found naturally in crushed roasted garlic, onions, and leeks. It is more bioavailable than thiamine. In fact, if you were to take 50 mg or 100 mg of thiamine the absorption rate is only 4 to 6 percent. So why is benfotiamine bioavailability higher? It's structure allows it to pass through the cell membrane into the intestinal wall directly, whereas regular thiamine needs a special transport system to get into the cell membranes and then the intestinal wall. Once benfotiamine is absorbed, it is converted into its active coenzyme form called thiamine pyrophosphate. When TPP in the blood is elevated, the formation of AGEs is reduced.

Another benefit of taking benfotiamine over thiamine is its ability to boost the activity of transketolase, an enzyme that acts as a safety valve in AGEs formation when glucose levels are high. High doses of thiamine fail to do this. Benfotiamine has been shown to be effective against diabetes and its symptoms. Diabetes is often considered an accelerated form of aging due to an excess amount of sugar. This leads to AGEs forming causing neuropathy, retinopathy and kidney disease. In human clinical trials Benfotiamine has been shown to slow down AGEs from forming in diabetics. In one study, 45 diabetics were given either 600 mg thiamine for 3 months or 400mg benfotiamine for three weeks, followed by 150 mg for nine weeks. Both groups also received vitamin B12 and B6. The results showed that thiamine had no effect on reducing neuropathy, while benfotiamine users experienced an 88% reduction in neuropathic pain. Also vibration perception improved by 60%. Benfotiamine also improves retinal function by reducing AGEs, as well as kidney function reducing hyperfiltration and reducing loss of albumin. As one can see benfotiamine is very effective for diabetics, as well as having benefits for those who wants to reduce AGEs.

*Nadeem Aslam, B.Sc. is constantly researching and recommending New Products at Nature's Source.*

## LETTER FROM THE EDITOR

### Antiaging

Aging just isn't what it used to be. Long gone are the images of grandma sitting in her rocking chair and grandpa getting around on his cane. What do we think of now when we think of someone in their mature years? We think of someone who has the potential for many active years after retirement. We think of people with diverse interests. Many are very active in the community, some are exercise enthusiasts, and many devote time to enjoying family – whether near or far. There is no end to imagining what a person with 'a few years under their belt' will do.

Yet many of us fear aging. This fear starts at a relatively young age. With so much of the world focused on the beauty as defined by youth, this is what we often strive for. Yet there is a different sort of beauty found in aging. Would we really want to go back to those awkward teenage days when we tried to discover who we were and how we fit in with the universe? For myself, once is enough, thank you!

Whatever our age, we want to feel and look our best. We are fortunate in this modern age to have testing for early diagnosis and treatment of health conditions. Even better yet, we are gaining more and more knowledge about preventing disease. We know about the benefits of antioxidants, essential fatty acids, and more in keeping our health. We can benefit from exercise – at the pace that is right for us.

We may try to 'age gracefully', but is this always the best way? Tony Curcio writes a humorous column in the Toronto Star's 'Prime Time' section and calls it 'Aging Disgracefully'. Doesn't that sound like more fun? Laughing is a wonderful way to stay 'feeling good'. If we appreciate our gifts - at any age – we will appreciate where we are on our adventurous journey through life. I wish you a happy and fulfilling journey – one moment at a time!

*Heather Allsop, B.Sc., Ph.D., RNCP, Editor*



## ..... Meet the NATURE'S SOURCE Staff .....

### Mario Alonzi B.Sc.



Many of you may have noticed a new, knowledgeable addition to the Nature's Source team. For the past several months, Mario has been helping customers – most often at the Mississauga store, but he can sometimes be found at the Etobicoke or Oakville locations.

Mario has great enthusiasm for Natural Health. After life-long health issues were not resolved by allopathic medicine, he eventually found the solution in a more natural approach, with the help of a holistic doctor. He also discovered a new pas-

sion – learning more and more about natural health products and how they work.

Mario has a B.Sc. and studied Psychobiology – a combination of Psychology, Chemistry, Biology, and Neurochemistry.

In the long run, Mario would like to help with the improvement of the health care system by educating the consumer. He would like to see Natural Health play a bigger role in the health care system. Mario is making his own contribution to making Natural Health available to all by guiding customers at Nature's Source. He is also our newest contributor to the Nature's Source News – we hope you enjoy his article on Hyaluronic Acid in this edition. Watch for Mario in the store, and in future editions of this newsletter.

## WE APPRECIATE YOUR FEEDBACK

*Do you have questions? Suggestions?*

*Other feedback about the Nature's Source News?*

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