

The Natural Pharmacy Newsletter

Wellspring Custom Pharmacy

January 2011

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Volume 5, Issue 1

In The News

Real Anti-Aging

Our bodies are made up of 10 trillion cells. According to one popular theory, we age because our cells age. Therefore if we can control the aging process in cells, we should be able to control aging.

Each of our cells has a nucleus. This in turn contains chromosomes that contain our genes. Each chromosome has two "arms" each containing a single molecule DNA. The DNA is a string of beads made up of units called bases. There are about 100 million bases per DNA molecule. Telomeres are found at the end of each chromosome. Each telomere is made up of about 15,000 bases at the moment of conception. The telomeres shorten each time the cell divides and with exposure to free radicals, trans fats, obesity, smoking, and other environmental toxins. Telomere shortening is part of the naturally aging cell and thus a part of our natural aging process. When our telomeres are reduced to about 5,000 bases, we die. So reducing the telomere shortening rate should lead to longer cell life and older living age in individuals.



So just how do we go about slowing the shortening of DNA telomeres? It all comes back to diet and exercise—the ultimate "base" of good health. Peak 8 exercises where you push yourself to increase heart rate for 20-30 seconds followed by 90 seconds of rest and repeating this 8 times not only is good for cardiovascular health but also maintaining telomeres. If you watch children and most animals you'll see similarities to the Peak 8 exercises—they run around at high speeds for short amounts of time and rest between spurts.

A lot has been written about the use of Human Growth Hormone (HGH) recently. When injected, it's supposed to slow the aging process and give more strength and stamina. After the age of 30 our HGH naturally decreases and insulin-like growth factor increases. This also drives our natural aging process. The Peak 8 exercises mention above not only decreases telomere shortening but also increases levels of HGH.

20 minutes of Peak 8 exercise two to three times per week can be expected to produce the following benefits:

- Decrease body fat
- Improve muscle tone
- Firmer skin with reduced wrinkles
- Increased energy
- Improved athletic speed and performance

- Ability to achieve fitness goals faster

Eating right can also help increase growth hormone release. The following will help optimize GHG production:

- Get a good night's sleep
- Avoid high fat meals prior to exercise
- Drink plenty of water
- Eat plenty of vegetables and high quality protein
- Avoid sugar, especially fructose
- Make sure your vitamin D levels are appropriate

With the new year upon us, let's make one of our New Year's resolutions to observe the above mentioned lifestyle changes, maintain those telomere lengths, maximize our bodies GHG production, and increase the quantity and quality of our life.

www.fitness.mercola.com/sites/archive/2010/12/24/a-fountain-of-youth-in-your-muscles.aspx

Iodine-An Essential and Often Overlooked Body Component

Two billion people in the world and at least 10% of the U.S. population are iodine deficient. As we have reduced iodine containing salt and foods such as eggs and dairy products to control cholesterol and decrease blood pressure, we have also made people more iodine deficient.

The importance of iodine cannot be overstated. Children born to mothers that are iodine deficient during pregnancy can have impaired intellectual development and are at an increased risk for developing attention deficit and hyperactive disorders.

In children and adults, iodine deficiency can lead to lower thyroid hormone production and symptoms of hypothyroidism. When iodine levels drop too much, TSH is produced, signaling the thyroid to produce more thyroid hormone. Increased TSH caused by low iodine can cause a tissue overgrowth called a goiter.

Iodine also serves many protective roles in the body. It is an antioxidant, an antimicrobial, an anti-proliferative, and an anti-carcinogen. Other major tissues also utilize iodine. These tissues include white blood cells, saliva and tear glands, the eye, the renal cortex, pancreas, liver, stomach, small and large intestine, skin, adrenal cortex, mammary gland, placenta, uterus, and ovaries.

Iodine's role as an antioxidant also helps prevent abnormal benign growths such as thyroid nodules, fibrocystic breasts, and uterine fibroids. It appears that

progesterone increases iodine uptake in the uterus it may also increase uptake of iodine in

breast tissue and help protect this tissue from over stimulation by

estrogen. Further evaluation is needed to determine the interaction between iodine and progesterone and the role that they may play in preventing benign cysts and breast cancer.

Optimal daily consumption of iodine is controversial. Thyroid sufficiency is thought to be 150-300 micrograms per day. The optimal amount for protection is thought to be 3000-6000 micrograms per day. The higher levels of iodine consumption stated above are similar to the Japanese intake that yields one-fifth the rate of breast cancer as that found in the U.S.

Although conventional iodine testing has been via a 24-hour urine collection, a new more convenient urine test is available from ZRT. This assay validated test consists of two dried urine specimens, one collected in the morning and the other collected at night. These dried specimens are easily collected and remain stable for quite sometime. If you're interested in finding out more about this test, please ask one of our knowledgeable associates.

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