



Bionutrition Newsletter

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What's in the News

Caffeine ingestion increases the insulin response to an oral-glucose-tolerance test in obese men before and after weight loss. HJ Petrie et al

The American Journal of Clinical Nutrition; July 2004, Vol. 80, No. 1

Heather Petrie and her associates study the effect of caffeine on insulin sensitivity in a group of obese men both before and after they lost weight. What this study found was the fact that caffeine made these individuals more resistant to their insulin and blood sugars were much higher following use of caffeine. It did not matter whether they lost any weight or not. In other words, the caffeine was the culprit and not their excess weight. Now most of these men were already resistant to their own insulin; however, when they consumed caffeine their insulin resistance became worse.

Changes in lifestyle and plasma total homocysteine. E Nurk et al. The American Journal of Clinical Nutrition; May 2004, Vol. 79, No. 5

Eha Nurk and her colleagues reviewed the literature on the effect of lifestyles on homocysteine levels. It is now been shown that elevated homocysteine levels not only increases your risk of heart disease and stroke but also increases your risk of cancer and dementia. There was a significant drop in homocysteine in those individuals who began taking vitamin supplements, quit smoking, and who began to exercise more regularly. They also noted that those individuals who quit consuming caffeine also lowered their homocysteine level.

These two studies are showing us that there are some negative effects of caffeine consumption especially in coffee drinkers. Caffeine seems to be the main culprit although I am also concerned with just the coffee beans. This would mean that decaffeinated coffee could still have some negative effects. However, this was not evaluated in either of these studies. Our health is strongly tied to both insulin sensitivity and our homocysteine levels. Like anything, if you are going to be drinking coffee, you should do it in moderation. If your homocysteine level is elevated or if you already have insulin resistance, you should consider giving up this lovely drink.

Compensation for energy intake from fast food among overweight and lean adolescents. CB Ebbeling et al. Journal of the American Medical Association; June 16, 2004, Vol. 291, No. 23

Cara Ebbeling and her associates looked at the consumption of the energy rich food that is characteristic of fast food restaurants. It was noted that previous studies had already shown that fast food has been closely linked to excess energy intake and obesity. They were concerned about why some children gained weight on fast foods and others did not. What they found was that obese children tended to overeat and were less likely to increase their activity level to compensate for the increased amount of calories consumed. Lean adolescents on the other hand tended to eat fewer calories and would either eat less during the rest of the day or increase their energy output.

Obesity is going to be the nemesis for the health care community and society in general for the next generation. Many studies are going to look at why not only adult obesity has increased nearly 60% in the past decade but also childhood obesity. Fast food primarily consists of high-glycemic white bread and French fries along with highly saturated meat. It is sparse in vegetables (when you don't consider the potato) and is basically void of any fruits. Fast food is calorie dense and offers very poor nutritional value. Its claim to fame is the fact that it is quick, easy, low cost, and tastes good. There is really no consideration for your health. Even though salads and maybe some low-carb choices are becoming available, most people realize that fast food is not your best choice of meals.

What most researchers do not realize is the fact that certain children are more prone to developing insulin resistance and therefore tend to overeat. Lean children simply do not over stimulate their release of insulin with these meals. This means that they do not fall into the low blood sugar range, which causes them to stimulate the release of stress hormones in an attempt to get these blood sugars back up to normal. This is what leads to what I refer to as a carbohydrate addiction and a significant consumption of excess calories.

Effect of Soy Protein containing isoflavones on cognitive function, bone mineral density, and plasma lipids in postmenopausal women. S Kreijkamp-Kaspers et al. July 7, 2004, Journal of the American Medical Association; Vol. 292, No. 1

These researchers looked at the benefits of taking soy protein in supplementation in women who were menopausal and seeing if there was any

health benefits. They concluded that soy protein supplements containing isoflavones did not improve cognitive function, bone mineral density, or plasma lipids in this group.

On the surface this study looks like a very negative study on the use of soy protein supplements containing isoflavones. At first, this was my reaction until I looked a little deeper and realized that the average female in this study had been in menopause an average of 18 years. Now it is common knowledge that almost all of the bone loss occurs in the first 5 years following menopause. Aging of the brain and dementia involves the destruction of the majority of brain cells. Therefore, once they have developed even early signs of dementia, you do not see improvement. This study was doomed to fail before it was even started. This is why I get so discouraged with the medical community. The designs of their studies are inappropriate for what they are really trying to find out. Soy protein supplements need to be taken earlier in life and be combined with healthy lifestyles that not only include a healthy diet but also an exercise program and cellular nutrition.

Glucosamine sulfate reduces osteoarthritis progression in postmenopausal women with knee osteoarthritis. O Bruyere et al. Menopause. March/April; 11 (2): 138-43

Women who had already entered menopause and who also suffered from osteoarthritis of the knee were given 1500 mg of Glucosamine sulfate daily. The control group received a placebo; however, both groups were allowed to take NSAIDS. They were followed for three years and the group the placebo group experienced worsening of their disease while the group taking Glucosamine actually had improvement of their symptoms.

Osteoarthritis, also known as degenerative arthritis, affects over 85% of the adult population over the age of 65. Joint replacement is becoming one of the most common surgeries of today. Billions of dollars are spent on non-steroidal anti-inflammatory drugs (NSAIDS) for this disease. Complications caused by these drugs leads to over 100,000 admissions each year and over 16,000 deaths. Since Glucosamine sulfate actually works better and has no side effects, doesn't it make sense that individuals who suffer from arthritis should be taking Glucosamine sulfate rather than NSAIDS. When you add cellular nutrition along with omega-3 fats and grape seed, you can even achieve greater results.

Curcumin, a major constituent of turmeric, corrects cystic fibrosis defects. ME Egan et al. Science; April 23, 2004; 304(5760):600-2

Curcumin is a natural calcium-pump inhibitor. Researchers at Yale University demonstrated that administering curcumin orally to mice who carried the same gene defect as those who suffer from cystic fibrosis had significant improvement in longevity. Mice that carried the defective CFTR protein usually had a mortality rate of 60% within 10 weeks. When they were given the curcumin orally, they only had a 10% mortality within 10 weeks.

This is a very encouraging study. This study was even reviewed in the August 5, 2004 edition of the New England Journal of Medicine by Dr. Pamela Zeitlin. Curcumin given in supplementation orally could improve individuals who suffer from cystic fibrosis. Obviously, more research needs to be done but the initial study is very exciting for this devastating disease.

What's New!

Bionutrition.org available in Spanish!

The Bionutrition.org web site is now available in Spanish. To access the Spanish version, go to the following link,

<http://www.Bionutrition.org/spanish>

... or click on the Spanish link on the home page.

New members can register for the Spanish-only version of the web site for \$29.95 per year. For both Spanish and English access, register for \$49.95 per year.

For a limited time, existing members can add access to the Spanish web site to their English-only membership for \$49.95. Your expiration date will be extended one-year.