

increasing consumption of meat, but in the top 75% of meat eaters, the risk of breast cancer was higher in women. There were strong positive associations in the risk of breast cancer with an increasing consumption of vegetables and fiber in women in the highest 25% of consumption. Those women had about 50% of the risk of cancer of those in the group with lowest consumption. There is the possibility that life-long avoidance of meat may also play a role in lowering risk. The results show that a diet rich in vegetables may protect against breast cancer.

*INTERNATIONAL JOURNAL OF CANCER, 2002, Vol 99, Iss 2, pp 238-244*

## **Safety of herbal ephedra/caffeine for weight loss**

The combination of herbal ephedra and caffeine had a beneficial effect on body weight and cholesterol. A six-month study examined the long-term safety and efficacy for weight loss of an herbal Ma Huang (90 mg) and Kola nut (192 mg) supplement in 83 participants who had a body mass index (BMI) of 31.8 kg. The results showed that herbs vs. the placebo decreased a) body weight 5.3 vs. -2.6 kg, b) body fat (-4.3 vs. -2.7 kg), and c) LDL-cholesterol (-8 vs. 0 mg/dl). It increased HDL-cholesterol (+2.7 vs. -0.3 mg/dl). The herbs produced small changes in blood pressure variables (+3 to -5 mmHg) and increased heart rate (+4 vs. -3 bpm). There were no increases in cardiac arrhythmias (abnormal rhythm of the heart beat). The side effects were dry mouth, heartburn and insomnia, but diarrhea decreased. There was no change in irritability, nausea, chest pain and palpitations. Thus, the effect of herbal ephedra/caffeine was to reduce body weight, body fat, and improve blood lipids, with no serious health complications.

*INTERNATIONAL JOURNAL OF OBESITY, 2002, Vol 26, Iss 5, pp 593-604*

## **Mixed vitamin E tocopherols vs. alpha tocopherol vitamin E alone**

Mixed vitamin E tocopherols appear to have a stronger effect against lipid peroxidation than vitamin E (alpha-tocopherol) alone. Mixed tocopherols have been found to counteract the development of atherosclerotic cardiovascular disease. However, large amounts of alpha vitamin E have shown only a slight effect or none at all. A study investigated the effects of alpha vitamin E alone compared to mixed vitamin E (gamma, delta and alpha-tocopherol) on lipid peroxidation in human red blood cells induced by hydrogen peroxide. Due to the action of hydrogen peroxide, lipid peroxidation strongly increased and polyunsaturated fatty acids decreased. The culture of red blood cells with mixed tocopherols increased the tocopherol levels in a concentration-dependent manner. Alpha-tocopherol and the tocopherol mixture protected the cells from lipid peroxidation. However, the absorption of gamma and delta-tocopherol

compared to alpha-tocopherol was found to be much higher in the cells. The mixture was much more potent than alpha-tocopherol alone. Thus, a combination of vitamin E (gamma, delta and alpha-tocopherol) has a strong inhibitory effect than alpha tocopherol alone on lipid peroxidation in human red blood cells.

*JOURNAL OF CARDIOVASCULAR PHARMACOLOGY, 2002, Vol 39, Iss 5, pp 714-721*

## **Cod liver oil vs. soybean oil in preventing kidney disease**

Fish oil and vegetable oil may play roles in helping to prevent nephropathy or kidney disease. A study investigated the effects of cod liver oil (CLO) and soybean oil (SO) on artificially induced kidney disease. CLO significantly reduced urinary albumin excretion and weakened the negative changes in tissue. (Urinary albumin excretion rate is independently related to autonomic kidney disease in type 2 diabetes.) In the mice fed SO, there was an increase of tissue lipid peroxide levels. However, this increase was suppressed in the mice fed CLO. Levels of the major endogenous antioxidant, glutathione (GSH) were also higher in mice fed CLO. After 72 hours, the detoxifying activity of the enzyme, GSH peroxidase in kidney tissue was significantly higher in mice fed CLO. The results suggest that cod liver oil can play an important role in the prevention of kidney disease.

*LIPIDS, 2002, Vol 37, Iss 4, pp 359-366*

## **Green tea and HIV**

A study determined the effects of one of the components of green tea, epigallocatechin-3-gallate (EGCG), on HIV infection. Peripheral blood lymphocytes (immune cells) were cultured with either one of two HIV strains (LAI/IIIB or Bal HIV) and increasing concentrations of EGCG. The results showed that the green tea component strongly inhibited the replication of both virus strains, as determined by reverse transcriptase and p24 assays. Thus, the demonstration of antiviral activity in green tea may make it potentially useful in the treatment of HIV virus infections.

*AIDS, 2002, Vol 16, Iss 6, pp 939-941*

## **PUFAs and sudden death after heart attack**

Polyunsaturated fatty acids (PUFAs) have shown promise in providing protection from sudden death after a heart attack. A study assessed the benefit of low dose n-3 polyunsaturated fatty acids on mortality in 11,323 survivors of recent heart attack (less than three months prior to the onset of the study). They were given supplements of n-3 PUFAs, vitamin E (300 mg/day), or both, in addition to optimal pharmacological treatment and lifestyle advice.

