



శ్రీ వేపచేదు విద్యా పీఠము

VEPACHEDU EDUCATIONAL FOUNDATION

The Telangana Science Journal

Health and Nutrition

TIACS-subscribe@yahoogroups.com (The Indian American Chemical Society)

Chief Editor: Sreenivasarao Vepachedu

Associate Editor: Venkateswara Rao Karuparthu

Issue 174 Contents:

Modern Tomato
Apples, Mangoes and Muscles
Spinach
Aging Life Span
Coffee/Tea
Soy for Health
Omega-3 and Turmeric
Vegetarian Diet Helps Pancreas
Sprinting
Breast Feeding
Father's Love
Meditation
Secondhand Smoke

Modern Tomato

About 70 years ago, tomato breeders discovered a variety that is red all over with commercial potential. Ripe tomatoes normally had a ring of green, yellow or white at the stem end. The mutation not only made tomatoes turn uniformly green and then red, but also disabled genes involved in ripening. Among them are some genes that allow the fruit to make some of its own sugar, other genes increase the amount of carotenoids, which give tomatoes a full red color, resulting in tasteless tomatoes that we eat today.

Now, researchers report, in a paper published in the journal Science, that they turned on the disabled genes while leaving the uniform ripening trait alone. The resulting fruit was evenly dark green and then

Issue 174

5114 *Kali Era*, *Nandana Year*, *Jyeshtha month*
2070 *Vikramarka Era*, *Nandana Year*, *Jyeshtha month*
1934 *Salivahana Era*, *Nandana Year*, *Jyeshtha month*
2012 AD, June

Copyright ©1998-2012

Vepachedu Educational Foundation, Inc



శ్రీ వేపచేదు విద్యా పీఠము

VEPACHEDU EDUCATIONAL FOUNDATION

The Telangana Science Journal

Health and Nutrition

TIACS-subscribe@yahoo.com

red and had 20 percent more sugar and 20 to 30 percent more carotenoids when ripe.

<http://www.sciencemag.org/content/336/6089/1711>

Apples, Mangoes and Muscles

New research findings published June 20 in the journal *PLoS ONE* suggest that the substance known as ursolic acid found in the apple peel reduces obesity and its associated health problems by increasing the amount of muscle and brown fat, two tissues recognized for their calorie-burning properties. Study showed that ursolic acid consumption increased skeletal muscle, increasing the animals' strength and endurance, and also boosted the amount of brown fat.

<http://www.sciencedaily.com/releases/2012/06/12062012855.htm>

Published in the journal *Food & Function*, the detailed analysis of three mango varieties, found that the peel from “Irwin” and “Nam Doc Mai” mangoes contained high concentrations of bioactives that inhibit development of human fat cells. <http://www.futurity.org/health-medicine/mango-skin-may-help-fight-flab/>

A study published in the *Journal of Bone & Mineral Research* found that muscle mass is associated with bone strength at particular places in the body. In women, muscle mass was strongly connected to cortical health at load-bearing locations such as the hip, lumbar spine and tibia. Researchers also found that muscle mass was associated with the microarchitecture of trabecular bone in women's forearms, a non-load-bearing site, at higher risk of fracture following menopause. The higher the level of the circulating protein, IGFBP-2, the lower relative muscle mass overall, they discovered.

<http://www.sciencedaily.com/releases/2012/06/120620133349.htm>

Spinach

Scientists found that consumption of spinach can offset the damaging effects of the carcinogen. In tests with laboratory animals, it cut the incidence of colon tumors almost in half, from 58 percent to 32 percent, reported in the journal *Molecular Nutrition and Food Research*. They also, for the first time, traced the actions of a known carcinogen in cooked meat to its complex biological effects on microRNA and cancer stem cells. <http://www.sciencedaily.com/releases/2012/06/12062013215.htm>

Issue 174

5114 *Kali Era*, *Nandana Year*, *Jyeshtha month*
2070 *Vikramarka Era*, *Nandana Year*, *Jyeshtha month*
1934 *Salivahana Era*, *Nandana Year*, *Jyeshtha month*
2012 AD, June

Copyright ©1998-2012

Vepachedu Educational Foundation, Inc



శ్రీ వేపచేదు విద్యా పీఠము

VEPACHEDU EDUCATIONAL FOUNDATION

The Telangana Science Journal

Health and Nutrition

TIACS-subscribe@yahoo.com (The Indian American Chemical Society)

Aging Life Span

An achievement of the 20th century was the increase of the average human life span, raising the proportion of the aged around the world, a financial, health care and social burden that needs to be addressed. <http://www.nytimes.com/2012/06/26/science/reframing-views-of-aging.html?ref=science>
<http://wholefed.org/2012/04/03/immortality-is-achievable-do-you-want-it/>

Older people who take vitamin D and calcium supplements may live a bit longer than their peers, according to an international review of several studies covering more than 70,000 people, reported in the Journal of Clinical Endocrinology & Metabolism. <http://www.webmd.com/healthy-aging/news/20120615/vitamin-d-with-calcium-may-boost-survival>

Too little vitamin D has been linked to a host of health problems, including obesity, diabetes and high blood pressure, and new research now suggests that a lack of this important nutrient may also contribute to mobility problems in old age. The researchers followed more than 3,000 people between the ages of 70 and 79 for six years, and found that those with the lowest vitamin D levels at the start of the study had nearly a 30 percent increased risk of a mobility limitation at the end of the study and almost twice the risk of a mobility disability as people with the highest levels of vitamin D. <http://health.usnews.com/health-news/news/articles/2012/06/01/more-vitamin-d-might-help-older-people-stay-active>

However, the value of supplementation remains in question as the [U.S. Preventive Services Task Force](#) (USPSTF) recommended against postmenopausal women taking low doses of vitamin D and calcium for prevention of fractures. Low dose was defined as 400 international units (IU) a day or less of vitamin D and 1,000 milligrams or less of calcium. <http://www.reuters.com/article/2012/06/12/us-vitamind-breaks-idUSBRE85B12220120612>

Coffee/Tea

When the researchers took into account other health-related characteristics among the participants, like smoking, [alcohol use](#), meat consumption, [physical activity](#) and body mass index, those who regularly drank coffee lived longer. Contrary to previous belief, at usual levels of consumption, coffee is not any

Issue 174

5114 *Kali Era*, *Nandana Year*, *Jyeshtha month*
2070 *Vikramarka Era*, *Nandana Year*, *Jyeshtha month*
1934 *Salivahana Era*, *Nandana Year*, *Jyeshtha month*
2012 AD, June

Copyright ©1998-2012

Vepachedu Educational Foundation, Inc



శ్రీ వేపచేదు విద్యా పీఠము

VEPACHEDU EDUCATIONAL FOUNDATION

The Telangana Science Journal

Health and Nutrition

TIACS-subscribe@yahoo.com

more of a diuretic than the equivalent amount of water. Up to six cups a day can be counted toward one's recommended liquid intake. Two prominent chemicals in coffee beans, cafestol and kahweol, are known to raise blood levels of artery-damaging LDL. These substances are removed when coffee is prepared through a filter, but remain in espresso, French press and boiled coffee.

<http://well.blogs.nytimes.com/2012/06/25/having-your-coffee-and-enjoying-it-too/?ref=science>

Those cups of coffee that you drink every day to keep alert appear to have an extra perk, especially if you're an older adult. A recent study monitoring the memory and thinking processes of people older than 65 found that all those with higher blood caffeine levels avoided the onset of Alzheimer's disease in the two-to-four years of study follow-up. Moreover, coffee appeared to be the major or only source of caffeine for these individuals, according to the online version of an article published June 5 in the Journal of Alzheimer's Disease. <http://www.sciencedaily.com/releases/2012/06/120604142615.htm>

New research in the 26 June issue of the journal *Circulation Heart Failure* suggests drinking coffee in moderation, (equivalent to two 8-ounce American servings) per day, may protect slightly against heart failure, contradicting the guidelines of the American Heart Association that currently warn against regular coffee consumption. <http://www.medicalnewstoday.com/articles/247109.php>

On the other hand, researchers found that men who drank more than seven cups of tea per day had a significantly increased risk of prostate cancer compared to those who drank no tea or less than four cups per day. The findings of the study have been published in the journal *Nutrition and Cancer*. Moderation is the key to health. <http://www.bbc.co.uk/news/uk-scotland-glasgow-west-18494725>

Soy for Health

In a report in The Journal of the American Medical Association in 2009, scientists who looked at 5,042 people in the Shanghai [Breast Cancer Survival Study](#) found that soy was linked to [a significantly lower risk of breast cancer recurrence and mortality](#). In a more recent multiyear study, published in May in The American Journal of Clinical Nutrition, scientists followed nearly 10,000 breast cancer survivors, many of them in the United States. They found that [women who ate the most soy had lower rates of cancer recurrence and mortality](#). <http://well.blogs.nytimes.com/2012/06/25/really-eating-soy-increases-the-risk-of-breast-cancer/?ref=science>

Issue 174

5114 *Kali Era*, *NandanaYear*, *Jyeshtha month*
2070 *Vikramarka Era*, *NandanaYear*, *Jyeshtha month*
1934 *Salivahana Era*, *Nandana Year*, *Jyeshtha month*
2012 AD, June

Copyright ©1998-2012

Vepachedu Educational Foundation, Inc



శ్రీ వేపచేదు విద్యా పీఠము

VEPACHEDU EDUCATIONAL FOUNDATION

The Telangana Science Journal

Health and Nutrition

TIACS-subscribe@yahoo.com (The Indian American Chemical Society)

Omega-3 and Turmeric

Medical researchers discovered a possible explanation for DHA, an omega-3 fatty acid found in flax, walnuts, verdalago, spinach etc., that makes our memory sharpe a in the journal *Applied Physiology, Nutrition, and Metabolism*. Memory cells in the hippocampus could communicate better with each other and better relay messages when DHA levels in that region of the brain were higher. This could explain why memory improves on a high-DHA diet.

Published June 26 in the *Journal of Neurosurgery: Spine*, a report suggests that DHA and curcumin dietary supplements help repair nerve cells and maintain neurological function after degenerative damage to the neck.

Economically impoverished women from an indigenous group in Bolivia have significantly higher levels of omega-3 fatty acids in their breast milk as compared to women in the U.S. Published in the journal *Maternal and Child Nutrition*. The percentages of DHA in breast milk did not significantly decrease across the first two years postpartum, the period during which infant brains experience peak growth and maximal uptake of DHA. This was also true for U.S. women, suggesting that extended breastfeeding by both U.S. and Tsimane mothers may provide infants with a constant source of DHA during the critical period of brain development. <http://www.futurity.org/health-medicine/amazon-womens-breast-milk-rich-in-omega-3s/>

Vegetarian Diet Helps Pancreas

The pancreas, which is located behind the stomach, releases digestive enzymes to break down food. Acute pancreatitis is a potentially life-threatening disease that occurs when those enzymes begin to eat the pancreas itself. A vegetable-heavy diet could help prevent acute pancreatitis, a new study suggests. After adjusting their statistics for various factors, the researchers found that those who ate more than four servings of vegetables a day were 44 percent less likely to develop acute pancreatitis than those who ate less than one serving of vegetables a day. <http://consumer.healthday.com/Article.asp?AID=666151>

Sprinting

Issue 174

5114 *Kali Era*, *NandanaYear*, *Jyeshtha month*
2070 *Vikramarka Era*, *NandanaYear*, *Jyeshtha month*
1934 *Salivahana Era*, *Nandana Year*, *Jyeshtha month*
2012 AD, June

Copyright ©1998-2012

Vepachedu Educational Foundation, Inc



శ్రీ వేపచేదు విద్యా పీఠము

VEPACHEDU EDUCATIONAL FOUNDATION

The Telangana Science Journal

Health and Nutrition

TIACS-subscribe@yahoogroups.com

Sprinting helps men lose harmful belly fat faster, scientists report in the Journal of Obesity. Eight-second bursts of sprinting on an exercise bike repeated intermittently for 20 minutes helped overweight men lose 2 kilograms (4 pounds) of body fat over 12 weeks. There was a 17 percent reduction in fat stored around their liver, kidneys and other internal organs that is associated with an increased risk for cardiovascular disease. Visceral fat is more strongly associated with heart problems, diabetes and inflammatory conditions than subcutaneous fat, which is just below the skin.

Breast Feeding

More than 15 percent of new HIV infections occur in children. Without treatment, only 65 percent of HIV-infected children will live until their first birthday, and fewer than half will make it to the age of two. Although breastfeeding is attributed to a significant number of these infections, most breastfed infants are not infected with HIV, despite prolonged and repeated exposure. New research demonstrates that breast milk has a strong virus killing effect and protects against oral transmission of HIV. The study appears in the June 14, 2012 issue of the online journal *PLoS Pathogens*.

<http://www.sciencedaily.com/releases/2012/06/120614182751.htm>

Economically impoverished women from an indigenous group in Bolivia have significantly higher levels of omega-3 fatty acids in their breast milk as compared to women in the U.S. Published in the journal *Maternal and Child Nutrition*. The percentages of DHA in breast milk did not significantly decrease across the first two years postpartum, the period during which infant brains experience peak growth and maximal uptake of DHA. This was also true for U.S. women, suggesting that extended breastfeeding by both U.S. and Tsimane mothers may provide infants with a constant source of DHA during the critical period of brain development. <http://www.futurity.org/health-medicine/amazon-womens-breast-milk-rich-in-omega-3s/>

Father's Love

Father's love is critical to a person's development. The importance of a father's love should help motivate many men to become more involved in nurturing child care. A father's love contributes as much to a child's development as does a mother's love. That is one of many findings in a new large-scale analysis of research about the power of parental rejection and acceptance in shaping our personalities as children and

Issue 174

5114 *Kali Era*, *Nandana Year*, *Jyeshtha month*
2070 *Vikramarka Era*, *Nandana Year*, *Jyeshtha month*
1934 *Salivahana Era*, *Nandana Year*, *Jyeshtha month*
2012 AD, June

Copyright ©1998-2012

Vepachedu Educational Foundation, Inc



శ్రీ వేపచేదు విద్యా పీఠము

VEPACHEDU EDUCATIONAL FOUNDATION

The Telangana Science Journal

Health and Nutrition

TIACS-subscribe@yahoogroups.com (The Indian American Chemical Society)

into adulthood, published in *Personality and Social Psychology Review*.

<http://www.sciencedaily.com/releases/2012/06/120612101338.htm>

Meditation

Mindfulness meditation known as integrative body-mind training (IBMT) changes structural efficiency of white matter in the brain that can be related to positive behavioral changes in subjects practicing the technique for a month and a minimum of 11 hours total, researchers report in a paper appearing in the online Early Edition of the *Proceedings of the National Academy of Sciences (PNAS)*,

<http://www.sciencedaily.com/releases/2012/06/120613183813.htm>

Secondhand Smoke

According to the Environmental Protection Agency, parents are responsible for 90 percent of children's exposure to environmental (second-hand) tobacco smoke. Children with mothers who smoke are at even higher-risk for developing health disorders. In a presentation at the American Urological Association Annual Meeting, physicians at the University of Medicine and Dentistry of New Jersey-Robert Wood Johnson Medical School and Robert Wood Johnson University Hospital showed that second-hand cigarette smoke was associated with moderate to severe irritative bladder symptoms in children.

<http://www.sciencedaily.com/releases/2012/06/120607154105.htm>

Issue 174

5114 *Kali Era*, *Nandana Year*, *Jyeshtha month*
2070 *Vikramarka Era*, *Nandana Year*, *Jyeshtha month*
1934 *Salivahana Era*, *Nandana Year*, *Jyeshtha month*
2012 AD, June

Copyright ©1998-2012

Vepachedu Educational Foundation, Inc



శ్రీ వేపచేదు విద్యా పీఠము

VEPACHEDU EDUCATIONAL FOUNDATION

The Telangana Science Journal

Health and Nutrition

TIACS-subscribe@yahoogroups.com

Notice: This material contains only general descriptions and is not a solicitation to sell any insurance product or security, nor is it intended as any financial, tax, medical or health care advice. For information about specific needs or situations, contact your financial, tax agent or physician.

Source: The primary sources cited above, New York Times (NYT), Washington Post (WP), Mercury News, Bayarea.com, Chicago Tribune, USA Today, Intellihealthnews, Deccan Chronicle (DC), the Hindu, Hindustan Times, Times of India, AP, Reuters, AFP, womenfitness.net, about.com etc.

Copyright ©1998-2012

Vepachedu Educational Foundation, Inc

Copyright Vepachedu Educational Foundation Inc., 1998-2012. All rights reserved.

Om! Asatoma Sadgamaya, Tamasoma Jyotirgamaya, Mrityorma Amritamgamaya, Om Shantih, Shantih, Shantih!

(Aum! Lead the world from wrong path to the right path, from ignorance to knowledge, from mortality to immortality, and peace!)

Issue 174

5114 Kali Era, NandanaYear, Jyeshtha month
2070 Vikramarka Era, NandanaYear, Jyeshtha month
1934 Salivahana Era, Nandana Year, Jyeshtha month
2012 AD, June

Copyright ©1998-2012

Vepachedu Educational Foundation, Inc