



శ్రీ వేపచేదు విద్యా పీఠము

VEPACHEDU EDUCATIONAL FOUNDATION

The Telangana Science Journal

Health and Nutrition

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

Chief Editor: Dr. Sreenivasarao Vepachedu

Editor: Miss Krishna Claudia Vepachedu

Associate Editor: Dr. Venkateswara Rao Karuparthu

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New Sweetener

The U.S. Food and Drug Administration approved the sixth artificial sweetener advantame, which can be used in baked goods, soft drinks and other non-alcoholic beverages, chewing gum, candies, frostings, frozen desserts, gelatins and puddings, jams and jellies, processed fruits and fruit juices, toppings and syrups. Advantame is a white powder that dissolves in water and remains stable even at higher temperatures, the FDA said in a news release. It can be used as both a tabletop sweetener and as an ingredient in cooking. <http://www.nlm.nih.gov/medlineplus/ency/article/007492.htm>

Obesity Rates

More than one-third of the world's adults are overweight or obese, a new study shows. And rates among children have increased by more than half since 1980, the study found. Researchers found that the total number of overweight and obese people more than doubled, from 857 million to 2.1 billion. About 37% of men and 38% of women were overweight or obese in 2013. That's up from 29% and 30% in 1980. Among children in developed nations, more than 23% now are overweight or obese. In developing

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countries, rates average about 13%. The highest adult obesity rates also are occurring at younger ages in developed nations, the study found. More than half of the world's 671 million obese people live in 10 countries. The United States alone is home to 13%. The others are China, India, Russia, Brazil, Mexico, Egypt, Germany, Pakistan and Indonesia, according to the journal *Lancet*.

People eat too much food if available in plenty and cheap, because it is difficult to control when there is plenty and cheap food. Unless one has dietary restrictions, it would be difficult to eat less at a buffet. In the US, the cost is low by historic standards. Americans spent about 25% of their disposable income on food in the 1930s, 20% in the 1950s, and just 10% today, reaching a historic low. This is a smaller share of income spent on food than any other society in history or anywhere else in the world. Snack products and fast food, large portion sizes, increased use of cars and more time spent in front of TVs and computers, add to the cheap and plenty food to raise in obesity. An analysis was published in the journal *CA*.

In addition, children who don't get enough sleep may also have a higher risk of being overweight. Kids who were the most sleep-deprived scored higher on other measurements of body fat and were about 2½ times as likely to be obese as those who consistently got enough sleep, according to a report in the journal *Pediatrics*.

New research published in *the American Journal of Epidemiology* has found that women who are exposed to greater levels of light while sleeping tend more often to be obese. The reason for the associations is not clear, but metabolism is affected by cyclical rhythms within the body that relate to sleeping, waking and light exposure.

Memory

Memory is dynamic and changeable. Episodic memory is a form of memory rich in contextual details, dependent on a brain region called the hippocampus, and another form of memory, called "semantic memory" which relies primarily on neocortex, and which is a more general memory, recording the gist of the initial episodic memory. According to multiple trace/transformation theory, each time an episodic memory is retrieved, it is automatically re-encoded by the hippocampus along with the new context in which retrieval occurs. Over time, and with every retrieval, multiple memory traces accumulate; the

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neocortex extracts similarities from these traces to form a generalized memory, the semantic memory. By this process, the memory is transformed over time, from a mostly hippocampus dependent, context-rich memory, to a more general memory, a recording of the essential elements of the memory, that captures the gist of the initial episodic memory. Memory for events is facilitated if they occur in familiar rather than unfamiliar places. These findings could be used to help ameliorate memory problems in older adults, and in people with dementia, who have to leave their home and move into new living quarters.

<http://www.can-acn.org/meeting2014>

We can form a memory, erase that memory and we can reactivate it, at will, by applying a stimulus that selectively strengthens or weakens synaptic connections, according to a study published in advanced online issue of the journal *Nature*. <http://www.biospace.com/News/how-to-erase-a-memory-and-restore-it-university-of/335402/source=Featured>

Speaking two languages benefits the ageing brain, according to new research, and it can be just as beneficial to learn one later in life as in childhood.

<http://www.telegraph.co.uk/health/healthnews/10869619/Learning-a-second-language-in-adulthood-can-slow-brain-ageing.html>

Blood Pressure

High blood pressure is a major source of morbidity and mortality, because it makes individuals more prone to heart failure, stroke and kidney disease.

When blood pressure travels down the aorta from the heart, a special group of cells in the aortic wall, called baroreceptors, sense the pressure in this stretch of the aortic wall and send signals with this information to the nervous system.

If the blood pressure is too high, these cells send stronger signals and the body is able to lower blood pressure. However, if the aorta gets stiffer, as typically happens with age, this stretch of the aorta is not as sensitive as it once was in measuring blood pressure. With the stiffening of the wall that follows ageing,

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these sensors become less able to send signals that reflect the actual blood pressure. Thus, although a person's blood pressure may have increased, the baroreceptors do not signal as intensively as they should and the body does not get the message to lower blood pressure.

http://www.eurekalert.org/pub_releases/2014-05/nuos-hs052714.php

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.

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!)

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