HEALTH AND STRESS

The Newsletter of
The American Institute of Stress

Number 1 January 2012

STRESS FROM BEING TOLD WHAT TO EAT AND AVOID

KEYWORDS: Umami, *chocolatl*, Montezuma, Cortés, *Poisson d'Avril*, Kuna Indians, Casanova, Pope Gregory XIII, Jesuits, Lent, Pope Clement XIV, cup of Borgia, Cadbury "Flake of the Year" girl, *ananda, Chocolate à la capucine*, *Dietary Guidelines for Americans,* Maasai, Tokelauans, Inuit, Kitavans, AHA, Boar's Head, Cheerios "

I suspect that many people are tired as well as confused about all the conflicting dietary advice they receive from different sources, including the Government. The facts are that there is no "one size fits all" nutritional regimen and no such thing as a "health food" that is beneficial for everyone.

Also Included In This Issue

Foods or additives should obviously be avoided if there is a history of allergy or sensitivity. Some may also be contraindicated in certain diseases or if they interfere with medications that must be taken. But these are very personal prohibitions that do not pose significant problems for most of us. And, according to an old maxim, "One man's meat can be another's poison".

Why people have a preference for specific foods and dislike others also varies considerably. We have five basic tastes: sweet, bitter, sour, salty and umami. Umami, which was recently added, is a Japanese word for delicious, and is found in ripe tomatoes, soy sauce and especially monosodium glutamate. Most people tend to enjoy things that are sweet and avoid those that are sour or bitter. Anthropologists believe we are attracted to sweets because we evolved from primates who foraged for ripe fruit, which had a higher sugar content that supplied quicker energy and more water than unripened fruit. Chimps use sticks, clubs, and leaves or make other tools, depending on where they live, to break into beehives and extract honey. Some even use their hands despite risking bites from angry swarms of bees.

Arabs spread sugar cane as their empire grew, Crusaders brought it back to northern Europe, and Columbus planted sugar cane in Santo Domingo, where it grew like a weed and spread rapidly to other Caribbean countries. After it was discovered how to extract sugar from beets and corn that grew in cooler climates, sugar consumption skyrocketed. Manufacturers quickly learned that adding sugar to processed convenience foods, especially cereals, could dramatically increase sales despite its harmful effects. The high-fructose corn syrup used to sweeten soft drinks causes significantly more harm than its mere sugar content, and is believed to have played a major role in the current epidemic of obesity, especially in young children.

Why We Like Chocolate, And Should We Be Eating More Of It Than Less?

Kids like chocolate because it is sweet, but parents often limit or ban it because of concerns about dental decay, acne or excessive weight gain. Chocolate comes from the beans of the cacao tree, which the ancient Incas and Mayans ground into a paste and added spices and water to make a bitter drink called *chocolatl*. They believed it increased energy and virility, and Montezuma, Emperor of Mexico, allegedly drank 30 or more cups daily, and always had a few before visiting his harem. Cacao (cocoa) beans were so prized that they were often used as currency. A rabbit could be purchased for four, a prostitute's services for ten, and a slave for 100. Hernán Cortés, the Spanish explorer, who conquered Mexico, received gifts of gold and silver, but also cacao beans, and Montezuma introduced him to *chocolatl*. Having learned that in the New World, money really did grow on trees, Cortés cultivated cocoa plantations in Mexico, Trinidad, Haiti, and elsewhere in the Caribbean. He also sweetened the drink with sugar and vanilla and introduced it to Spain, where it became wildly popular. The Spanish tried to keep it a secret but in 1660, when Maria Theresa of Spain married Louis XIV, she brought a maid specifically to make chocolate for her. The spread of chocolate from the royal court to the rest of French high society quickly followed, and by 1687 there were at least three chocolate makers in Paris. Five years later, French wine merchants complained that chocolate sales, along with coffee, were cutting into their profits.

Chocolatiers sprung up in England, Belgium, Switzerland and other parts of Europe and the demand became so great that the British, French and Dutch developed plantations in their own foreign tropical territories, which drove down the price. Around 1850, it was found that adding cocoa butter rather than just hot water to cocoa powder would make solid chocolate. In 1875, Henry Nestlé added condensed milk to create a milk chocolate bar, and in 1879, Rudolphe Lindt in Switzerland invented a machine that rotated and mixed chocolate to a perfectly smooth consistency. By 1907, Milton Hershey's U.S. factory was making 33 million kisses daily.

The global chocolate confectionary market now has estimated annual sales of $75 billion, with European manufacturers accounting for $35 billion and over $21 billion from Hershey alone in the U.S. In addition to chocolate candies, bars and cookies, there are after-dinner mints, brownies, truffles, doughnuts, cakes, ice cream, fudge, milk, syrup, etc. If it has chocolate, we eat it: hot, cold, solid, liquid, over ice cream, and even "gourmet" snacks of chocolate covered grasshoppers and crickets. Chocolate has become part of our culture. Chocolate candies are a traditional Valentine's Day gift, as are chocolate Easter bunnies, and hotels often place a small packet of chocolate on a pillow when preparing a bed for retiring. The French celebrate April Fool's Day with "*Poisson d'Avril*" (chocolate-shaped fish). When the space shuttle Atlantis docked with the Russian space station Mir in 1996 to form the largest man-made satellite ever to orbit the Earth, our astronauts included gifts of chocolate for their cosmonaut colleagues.

The annual per capita consumption of chocolate is over 25 lbs. in Germany and Ireland, followed by Switzerland, the U.K. and Norway, all of which are over 21 lbs., compared to 11 lbs. for the U.S. but only 2.2 lbs. for Japan. Many people crave chocolate but not other sweets, and some chocoloholics seem to be addicted to it. Consumption has risen 3% each year for the last 100 years, it is one of the few luxury foods not affected by recessions, and sales are expected to increase further as it becomes more popular in the Orient. Most chocolate comes from Africa, where there are over 600,000 7 to 10 acre cocoa farms on the Ivory Coast alone. It takes 400 cocoa beans to make one pound of chocolate and **U.S. manufacturers use 3.5 million pounds of milk every day to make milk chocolate**. Annual cocoa production is 3 million tons worldwide and **40-50 million people depend entirely on cocoa beans for their livelihood.**

Up until 1737, Botanists had called the cacao bean *Amygdala pecuniaria* (money almond), when Carl Linnaeus, who classified all living things based on their genus and species, named the cacao tree Theobroma cacao, from the Greek *theo* (God) and *brôma* (food), or "**food of the gods**". This may have been because the Aztecs considered cacao to be a gift from *Quetzalcoatl*, the god of the air. Others believed that along with ambrosia and nectar, the gods ate chocolate to maintain their immortality, and that cocoa could also promote longevity in people. Scientific studies seem to support this, as well as equally surprising cardioprotective benefits. The Harvard alumni health project, an ongoing study of 8,000 men entering Harvard University as undergraduates between 1916 and 1950, found that chocolate eaters lived a year longer than abstainers, and **those who ate three or more bars a month had a 37% lower risk of premature death**. A 2009 report from the renowned Karolinska Institute found that survivors of heart attacks who ate chocolate at least two or three times a

week had death rates three times lower than those who abstained. This applied only to chocolate and not other sweets. Dutch researchers divided a group of 470 elderly men according to how much cocoa-containing food they ate or drank. Over the next 15 years, **those who consumed the most were half as likely to die from heart disease or any other cause as men who consumed the least.** Some of the oldest supercentenarians have also cited chocolate as one of the secrets of their success. Jeanne Calment (1875-1997) and Sarah Knauss (1880-1999) both had a passion for chocolate. Calment, a heavy smoker, ate two pounds per week until her physician convinced her to give it up at age 119. She died three years later.

Chocolate contains several hundred natural chemicals, many of which are powerful antioxidants like flavonoids, and polyphenols that have been shown to prevent or retard the development of atherosclerosis and heart disease. The alleged anti-aging and health benefits of red wine, green tea and blueberries are also attributed to these antioxidants. However, dark chocolate and cocoa have concentrations that can be hundreds of times higher, as well as other free radical scavengers that provide additional rewards. Harvard researchers, who reviewed 24 studies that investigated the health benefits of eating chocolate, concluded that it lowered blood pressure and decreased insulin resistance, which could reduce the risk for Type 2 diabetes. A report at last year's annual American Heart Association convention revealed that eating a small 50-gram square of dark chocolate daily lowered blood pressure in all participants, particularly those with hypertension. Although the Kuna Indians who live in Islands off the coast of Panama have a high sodium diet, they do not develop hypertension as they grow older. This was presumed to be due some protective genetic trait, until it was noted that when they moved to the mainland and followed the same diet, their blood pressures started to show the usual rise with aging. Researchers thought the stress of life in a new environment might explain this, but the real culprit was that they were no longer able to adhere to their traditional habit of drinking 5-6 cups of a local cocoa-based beverage every day. Once this custom was resumed, blood pressures returned to their usual lower levels. Cocoa and dark chocolate contain chemicals that trigger the release of nitric oxide, which relaxes and dilates blood vessels. They are also rich sources of potassium, which studies show shown can reduce the risk of hypertension and stroke. Other ingredients reduce platelet stickiness and aggregation that cause blood clots. While the magnitude of each of these factors is not impressive, their combined impact may explain why chocolate could help to prevent heart attacks and strokes.

Similarly, chocolate's stimulating effects are attributed to its caffeine content, but you would have to eat more than 12 Hershey bars to get as much caffeine as there is in one cup of coffee. However, coffee contains

theobromine and other methylated xanthines that are chemical cousins of caffeine, and while they do not have the same effect on the central nervous system, they do influence neurotransmitters that increase alertness and can have other physiologic effects. Theobromine is a bronchodilator that is more effective than codeine in suppressing cough and is often used in natural remedies for respiratory complaints. Its stimulating effects vary in different animals, and horses are so sensitive that it is banned in horse racing. Since dogs cannot metabolize theobromine, a two-ounce piece of chocolate can be fatal, and it could make some children sick for the same reason. Chocolate contains phenylethylamine, a chemical related to amphetamine, which also increases alertness, but has other effects on mood and behavior that might lead to a dependency or addiction.

Conflicts With Catholicism And Is Chocolate An Addictive Aphrodisiac?

In 1632, Spain imposed the first "vice" or "sin" tax on cacao because it was considered to be an immoral luxury, which increased chocolate's reputation as an aphrodisiac. The infamous Italian lover, Casanova, wrote in his autobiography that it was his "favorite breakfast food." He also used it as a "love potion" for the women he seduced, and to bribe their chaperones and guardians. Chocolate was often included in recipes to cure impotence, and 18th century medical treatises listed "promotes venery" as one of its effects. In addition, it was believed to induce a sense of euphoria and well being similar to marijuana, which had been used for thousands of years to treat depression and insomnia and relieve pain from muscle spasm, menstrual cramps, rheumatism, gout and a host of other disorders. Chocolate was also considered to be the drink of choice for the church hierarchy. During the 1760 conclave, when it took six months to elect the next Pope, the cardinals enjoyed hot chocolate as well as chocolate coffee when they took a break.

It wasn't always that way. The Spanish ruled large parts of South America starting in the 16th century and Catholicism was progressively adopted. Some authorities felt that chocolate should be banned because it was used in pagan ceremonies. According to one account, a bishop who was visiting his new colonial diocese, discovered that many female converts were so addicted to chocolate that they drank it during mass. He issued a ban, but it backfired, since the women simply stopped going to church services. They then allegedly sent him a gift of poisoned chocolate, and that was the end of the bishop as well as his ban. Whether true or not, this story is significant because it is the first time that the addictive, mystical power of chocolate was linked specifically to women, which still influences how chocolate is marketed today. The Jesuits were the most successful proselytizers, and forbade the use of chocolate. This also boomeranged, since so many students protested and left the order that the ban was quickly rescinded. The Jesuits then limited the ban to Lent and fasting periods, claiming that

chocolate was a food. This infuriated parishioners as well as students, many of whom indulged in their daily dose of chocolate, often from a homemade recipe. The Jesuits not only lifted the ban, but in view of chocolate's popularity, began importing the beans to Europe to raise funds. This proved so profitable that they expanded their efforts and eventually had what amounted to a monopoly on cacao bean trading. Many also started to drink cocoa beverages and urged others to take up the habit. This infuriated the Dominicans and Franciscans, who resented these exclusive rights and felt strongly that cocoa was food and should be banned during all fasts.

This was not the first time that there had been a dispute about whether chocolate violated the Church's Lenten Fast ruling. Puritanical Dominicans had previously pleaded for a ban to Pope Gregory XIII, of Gregorian calendar fame, who discussed this with his cardinals. The Spanish had initially regarded chocolate as a medicine, and physicians attempted to justify this by explaining its use based on Galen's teachings, which were considered gospel. Galen's humoral theory of disease was strongly supported by the Church and the Vatican pharmacy still makes Galenic preparations. In 1570, the royal physician to King Philip II of Spain, classified cacao as cool and humid, and therefore beneficial to reduce fever or relieve discomfort during hot weather. But many cardinals argued it was also a food, and since there was no unanimity of opinion, Gregory issued an oral decree in 1577 that medicines such as cocoa and chocolate would be allowed during Lent and other fasting periods. Nothing was written, but subsequent popes over the next two centuries sustained with this ruling. They apparently also liked hot chocolate, which eased hunger pangs during fasts, and chocolate or cocoa was one of the most frequent gifts presented to popes by visiting dignitaries.

The debate continued, since many still argued that these were foods with nutritional value that should be banned during Lent, although they might be permissible on other fast days. Others disagreed and some cardinals suggested the opposite. As a result, in 1666, the Holy Office decreed that chocolate should be restricted during Lent and fast days to a strict minimum and only when it was mixed with water, which angered the Jesuits. As an aside, it was well known that chocolate could disguise the taste of poisons. The Jesuits were very knowledgeable about this, as well as the famous cup of Borgia, a golden cup with a hidden area storing a poison so it could be mixed with wine or chocolate. Pope Clement XIV died a horrible death in 1774, after being poisoned by the Jesuits in retaliation for his banning them in a 1773 Papal Bull from celebrating Mass or other sacraments "perpetually and forever." The Jesuits fled from France, Spain and Portugal, most sought refuge in Protestant England, and the Order was not reinstated until 1814. While there were other factors, their expulsion may have been precipitated

by the chocolate during Lent controversy, and it has been suggested this could also explain the association between chocolate and Easter.

It is hard to believe how passionate people were about the chocolate drinks available hundreds of years ago. An English poet wrote the following tribute:

No sooner have you swallowed a generous mouthful
This pearl, this jewel, this marvelous potion of the Americas
It has barely begun to melt within you
Yet it cleanses and purifies you
Of all bitterness and all moral cares
Seeping into your arteries and veins
In a beauteous concoction of vermilion sauce.
By its presence and free flow it recalls
The torrid heat of the sun.

Henry Stubbes, 1662

She must have her chocolate every morning,
attentions without end. She constantly
complained of her chest, her nerves, and her liver.
The noise of footsteps made her ill; when people left her,
solitude became odious to her, if they came back,
it was doubtless to see her die.

Gustave Flaubert, Madame Bovary, 1857

It was originally thought that addiction to chocolate was seen only in women who were native to Central or South America, and white females were not susceptible. That may not be true, and manufacturers certainly don't agree, as illustrated by the following Cadbury ads and their "Flake of the Year" girl.

These would appear to appeal to males more than females, but that's not surprising, since it is men who buy boxes of chocolate for their sweethearts. Support for chocolate's aphrodisiac and addictive potential comes from several observations. As noted previously, chocolate triggers the production

of nitric oxide, which relaxes and dilates blood vessels to allow more blood to flow through them. Viagra and related drugs are effective in erectile dysfunction because they stimulate nitric oxide. Methylxanthine in chocolate can also lead to arousal because it blocks receptors for substances that constrict these same blood vessels. Chocolate increases the production of endorphins, which act much like morphine to reduce pain and stress and promote a feeling of well-being and euphoria. Any desire to binge on chocolate disappears when drugs like naloxone that block morphine are administered. Anandamide is a natural compound that produces a "high" when it binds to cannabinoid receptors in the brain. Its name comes from *ananda* a Sanskrit word for "bliss'' or "delight", and its receptors are referred to as cannabinoid because they are stimulated by tetrahydrocannabinol (THC), the active chemical in marijuana. Chocolate not only contains anandamide, but also two chemicals that prevent its breakdown, which would also lead to higher levels. However, the concentrations are so low it is doubtful they would lead to an addiction. A 130-pound person would have to eat 25 pounds of chocolate at one time to get any marijuana-like effects. There are claims that chocolate can relieve pain and improve symptoms in multiple sclerosis, and marijuana -laced chocolate is sold in the U.K.

Various antioxidants in chocolate have been shown to provide protection from certain cancers in animal and cell culture studies. Other ingredients may also bolster immune system resistance to cancer as well as infections. Unlike sugar, chocolate is not believed to cause dental decay or acne, and some scientists advocate adding it to mouthwash because of its antibacterial effects. Contrary to popular opinion, it does not cause acne, allergies are rare, and it is more likely to prevent migraine than trigger an attack. Chocolate has a low glycemic index, which means that in contrast to other candies and sweets, it does not cause blood sugar to rapidly spike and then fall to hypoglycemic levels. Flavonoids and other constituents decrease insulin resistance, a major cause of heart attacks and hypertension in Type 2 diabetics, for whom sugar-free chocolate products are readily available.

This description of the above myriad virtues of chocolate should not be misinterpreted as a recommendation to eat more chocolate for several reasons. The most important is that although numerous beneficial constituents have been identified, the amounts contained are so minute that they are unlikely to have any physiological effects. And these studies refer to dark chocolate, whereas most chocolates today are milk chocolate, which has much lower concentrations, and white chocolate has hardly any. The original *chocolatl* and early chocolate beverages had a bitter taste, and often included other ingredients that may have contributed to their addictive potential or reputation as an aphrodisiac. *Chocolate à la capucine* is named for a Capuchin Monk from Martinique, whose recipe was: "Put in a bowl and

mix well: 4oz. chocolate, 6 oz. sugar, 3 eggs beaten well with a good half-litre Madeira!" This should not be confused with cappuccino, an Italian coffee-based drink prepared with espresso, hot milk, and milk foam. *Cappucio* means hood in Italian, and both are derived from an order of Franciscan Minor friars called "*cappuccini*", because of their hooded garment.

Should All Saturated Fat Foods Be Taxed And Should Everyone Shun Salt?

The lesson to learn from all of the above is that opinions about the benefits and hazards of foods often change over the years due to socio-cultural and financial pressures, rather than scientific facts. The dominant influence in recent years has been peer pressure resulting from aggressive advertising by food manufacturers, and health organizations that profit from endorsing their products. Saturated fats have been demonized as a major cause of heart attacks by elevating blood cholesterol, which leads to atherosclerosis and blockage of the coronary arteries. Eating fat is also thought to cause obesity. None of these beliefs are true. In contrast to carbohydrates, a high fat diet promotes weight loss. The diet of the Maasai tribesmen in Kenya is mainly meat and high fat milk, and when George Mann investigated this 6 decades ago, he reported that some ate 4 to ten pounds of meat at festivals. Yet, he found that they had the lowest cholesterols recorded in healthy people, and both heart disease and obesity were very rare. Other studies have shown that **deaths from heart disease were lowest in those countries that had the highest fat consumption.**

Salt and sodium have similarly been vilified, since authorities warn that they cause hypertension, the leading cause of stroke. But that only applies to the 10 percent of individuals who are salt sensitive. The vast majority of healthy people do not exhibit any significant or sustained elevation of blood pressure from salt and sodium-rich foods, and any excess sodium that is ingested is excreted in the urine. There is no evidence that a low sodium diet reduces risk for stroke in healthy people, and one eight-year study of hypertensives found **those on low salt diets had more than four times as many heart attacks as those with normal sodium intake.** The anti-salt crusaders state that up to 44,000 lives a year could be saved if all Americans drastically cut their sodium intake. There are no studies to support this speculative claim, whereas numerous research studies suggest that severe sodium restriction in healthy people could be dangerous.

Sodium deprivation raises levels of aldosterone and renin, which causes physiological adjustments that increase risk for heart attack and stroke. Senior citizens are particularly susceptible, since low sodium diets are apt to cause dehydration. Despite these dangers, a quick visit to a supermarket will confirm that most foods now come in a low fat or low salt version, or both. The explanation for this is purportedly to promote health by adhering to

official recommendations, but the real reason is more likely to be an effort to increase profits. *Dietary Guidelines for Americans* is published every five years after reviewing "evidence based nutrition findings." The 2010 edition urges restricting foods based on their cholesterol, saturated fat or sodium content, without providing any proof that these measures prevent disease or improve health. However, they are endorsed by the American Heart Association, which receives millions of dollars for endorsing low fat and low sodium products. It also has a powerful influence on governmental officials who write these guidelines. The ban on saturated fat, which began in 1977, was initially opposed by the AMA, but became popular with the mistaken belief that it elevated cholesterol, which caused coronary heart disease. The low salt debate had been going on for over 100 years. As noted in a recent *Scientific American* review entitled "It's Time to End the War on Salt", a 1904 Newspaper headline also said "The zealous drive by politicians to limit our salt intake has little basis in science."

What is puzzling and paradoxical, is that like chocolate, both meat (rich in saturated fat) as well as salt (sodium chloride) were previously so prized, that they were used as currency, and could only be afforded by the wealthy. In the 16th century "the fat" meant the richest, choicest part of something. This probably dates back to the Bible in *Genesis*, where Pharaoh told Joseph to "come unto me: and I will give you the good of the land of Egypt, and ye shall eat the fat of the land." And later on in *Deuteronomy*, we read "and thou shall sell me meat for money, that I may eat." Cattle are probably the oldest of all forms of money, and were still being used as currency in parts of Africa in the middle of the 20th century. In sharp contrast to current beliefs, meat and salt were also considered to promote health, and subsequent scientific studies support these beliefs.

There is no reliable evidence that saturated fat clogs arteries or causes heart attacks. Like the Maasai in Kenya, heart disease and obesity are rarely seen in Inuit Eskimos, who consume large amounts of seal and whale blubber and meat rich in saturated fats. The FDA has warned consumers to avoid coconut oil and milk because it is 90% saturated fat, but in some Polynesian islands with poor salty soil, like Tokelau, the coconut palm is the only plant that will grow. Tokelauans obtain half their calories from coconut, placing them among the highest consumers of saturated fat in the world. Yet, their blood cholesterol and incidence of hypertension is below average and ECG's show no evidence of coronary heart disease. However, when they migrated to more civilized areas and cut their saturated fat consumption by half, and ate more carbohydrates, many gained weight (despite increased physical activity), developed diabetes and began to show ECG abnormalities.

There are very few existing cultures that have not been affected by modern food habits, but one that has been studied extensively are the inhabitants of the island of Kitava, in Papua, New Guinea. Researchers reported that Kitavans got 21% of their 2,200 calories per day from fat, (nearly all of which came from coconut) and that their intake of saturated fat was 55% more than the average American. Nevertheless, thorough investigations by physicians found no trace of coronary heart disease, stroke, obesity, diabetes or senile dementia, even in the very old. In Western diets, stearic acid, palmitic acid, and lauric acid comprise 95 percent of the saturated fat in steak, bacon or chicken skin and 70 percent of that in butter and milk. But stearic acid, which is found in high amounts in cocoa as well as animal fat, is converted to a monounsaturated fat called oleic acid, the same heart-healthy fat found in olive oil. Palmitic and lauric acid raise total cholesterol, but most of it is HDL "good" cholesterol. Nevertheless, Denmark recently imposed a tax on all foods containing saturated fat in the mistaken belief that it would curb rising rates of obesity.

With respect to salt, the ancient Chinese used coins of salt, and recognizing that everyone needs it, levied a tax on salt, as did many subsequent nations, including France and England. The Erie Canal, an 1825 engineering marvel that connected the Great Lakes to the Hudson river was called "the ditch that salt built", because per half the costs of construction came from salt tax revenues. Early Greeks and Mediterranean peoples also used cakes of salt as currency, especially to buy slaves, hence the expression "He's not worth his salt." The Romans sometimes paid their soldiers in salt, which is the origin of salary, as well as salad, after they began to sprinkle it on leafy vegetables. Sauce and sausage are also derived from the Latin *sal*. Salt was so highly prized in the Middle Ages, that it determined social status. It was common for the entire household of a wealthy person or noble to eat together at a table that might be up to thirty feet long. The more important people would be grouped around the Lord of the manor at one end, and those who were less significant or servants at the other. A large saltcellar was placed somewhere in the middle, and social status depended on whether you sat above the salt, the Lord's end, or below. If you were seated below the salt, then you were not allowed to take any. And when we want to hoard something valuable, we "salt it away." Salt was also believed to provide health effects such as disinfecting and drying out wounds, and seaside health resorts were recommended by the Greeks to cure skin and other diseases. Italians frequently sprinkled salt in corners of a house to purify it, and carrying a packet of salt was believed to ward off the evil eye. People still throw salt over their left shoulder when someone sneezes or there is an accident as a blessing, or to keep the devil away. "Rubbing salt into a wound" hurts, but does help to reduce infection. Some historians

claim that thousands of Napoleon's army died during the retreat from Moscow because their low salt diets prevented their wounds from healing.

Who Really Determines What To Eat Or Drink And What To Avoid?

We obviously have our own personal preferences based on whether we like or dislike the taste of a certain food or product, but its appearance, consistency, origin and effects on health can also influence our decision. These choices vary considerably, as illustrated by the old Latin adage *De gustibus non est disputandum*, (over tastes there can be no argument or dispute). This simply means that opinions about tastes are neither right nor wrong since there is no objective way to measure them. However, that is not true with respect to how foods affect our health, although there can also be sharp differences of opinion for some of these. Many disagree with official recommendations because they are based more on biased opinions rather than facts. Everyone is entitled to their own opinion, but not their own facts. Many of these recommendations come from individuals and groups that are sponsored by food and beverage companies with vested interests, and it is difficult to believe the truth, if your income depends on not believing it. Some Dietetic Associations are examples, but pale in comparison to the AHA (American Heart Association) annual income of almost $800 million in 2007. Much of this came from the use of its heart healthy logo shown below.

Current figures are hard to obtain, but in 2007, they charged companies for the use of this logo on a per product basis: $7,500 for each 1-9 products, $6,750 for 10-24 products and $5,940 for 25-99 products in their first year. To renew in subsequent years, the prices were $4,500, $4,050, and $3,570 respectively. According to their website, they now have close to 150 different manufacturers, and Campbell's soups, which owns Pepperidge Farms, Swanson, V8 and other food brands, has 200 products. Boar's Head has the logo on over two dozen processed meats, which most nutritionists would hardly consider to be "Heart-Healthy". AHA also now endorses certain brands of eggs, pork chops, seafood, pasta, popcorn, bananas, juices, rice beans, nuts, vegetables and fruit. there are now non-food products, such as the Nintendo Wii video game system and lap band surgery. Bayer pays it

over $500,000/year to endorse its aspirin, when it is obvious that all aspirin are identical. Nor have Chiquita bananas or Idaho potatoes ever been shown to be more heart-healthy than similar products, as is implied. The Beef Board pays AHA to put its new HeartCheck symbol on select grades of boneless sirloin, but an even bigger farce is Cheerios, as noted below:

You can Lower Your Cholesterol 4% in 6 weeks

- Did you know that in just 6 weeks Cheerios can reduce bad cholesterol by an average of 4 percent?
- Cheerios is clinically proven to lower cholesterol. A clinical study showed that eating two 1 1/2 cup servings daily of Cheerios reduced bad cholesterol when eaten as part of a diet low in saturated fat and cholesterol."

(See http://youtu.be/wfgNcIAnYs8 for a really ridiculous commercial)

The FDA has chastised General Mills for portraying Cheerios as a drug, but the company produced a study that could allegedly allow such a conclusion. But how can AHA endorse a sugary cereal or processed meat product as promoting cardiovascular health? By simply selecting one component that supports this, such as fiber in Cheerios. Boar's Head qualifies because it meets AHA standards for cholesterol content and Nintendo's Wii video game encourages "heart-healthy" exercise. All eggs are high in cholesterol and fat but some studies show they prevent blood clots, strokes and heart attacks.

Consumers don't check food constituents, which are usually in small print, and faced with a choice, will choose a product with the red HeartCheck symbol that implies it is healthier or superior in some other way. These endorsements must be profitable, or else they wouldn't keep increasing. As noted in previous Newsletters, the primary goal of many organizations such as the AHA and the American Cancer Society now seems to be more about increasing revenue rather than disease prevention or promoting health. Can anything be done to stop this travesty? — stay tuned!

Paul J. Rosch, MD, FACP
Editor-in-Chief

Health and Stress
The Newsletter of
The American Institute of Stress
124 Park Avenue Yonkers, NY 10703

ANNUAL SUBSCRIPTION RATE:

E-Mail.....$25.00

ISSN#108-148X

PAUL J. ROSCH, M.D., F.A.C.P.
EDITOR-IN-CHIEF
www.stress.org
e-mail: stress124@optonline.net