

October 2005

Volume 3

Issue 4



Sandesh

The Message : A Newsletter from IndUS of Fox Valley

From Editors' Desk

Dear Readers,

It has been a tradition to devote the October issue of *Sandesh* each year to the theme of upcoming Annual IndUS banquet. Since the theme of IndUS-2005 is *Health & Wellness: Perspectives from India*, the articles in this issue deal with some topics of general interest in this field. These articles will provide a small glimpse of the medical traditions and health practices. Additionally the exhibits, multi-media presentation and the cultural program at the event will further enhance your understanding of India's contribution to health and wellness.

Sandesh

**An IndUS of Fox Valley
Publication**

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IndUS 2005

Health & Wellness: Perspectives from India

Health & Wellness: Perspectives from India is theme of the upcoming annual IndUS-2005. IndUS of Fox Valley collaborates with University of Wisconsin-Oshkosh in presenting a feast to all the senses.

Guests will be treated to an exhibition and Multi-media presentations that capture the rich Indian perspectives on health and wellness, which calls for a holistic approach to mind, body and spirit. The exhibition, an authentic Indian dinner and cultural program, are all built around the theme of *Health & Wellness: Perspectives from India*. Dr. John Mielke, a prominent cardiologist, will be the Keynote Speaker. For more than two decades Dr. Mielke has been passionately involved in many community endeavors. To name a few, he has been a founding member of Community Foundation of the Fox Valley Region, founder of Appleton Education Foundation, member of the Governor's Tobacco Control Board, member of Appleton Area School District Board of Education, and serves on the board of several other area organizations.

Indian perspectives on health and wellness have evolved from two major traditions: Ayurveda and Yoga. Ayurveda, one of the oldest systems of medicine in the world, dates back to Atharva Veda (800 B.C.). It focuses on three elementary concepts: harmony with nature, holism, and dietary discipline.

The word Yoga originates from the Sanskrit word "Yuj" ("to yoke") and is generally translated as "union" or "integration" of self with spirit. Yoga

techniques cover a broad range, encompassing physical, mental, and spiritual activities. In essence the accent is on achieving a holistic balance among body, mind and soul. Over the centuries, India has embraced different traditions such as Unani (Greek-Arabic), Homeopathy, Tibetan and Chinese medicines, just to name a few. The predominant medical tradition in India today is Allopathic Medicine from the West.

In the globalized world of today, India has much to offer: its age-old wisdom, experience, and its ability to adopt and to adapt to diverse approaches to health and wellness. IndUS-2005 will celebrate this unique, integrated, cosmopolitan approach to quality of life.

As in the past year, IndUS is awarding four scholarships of \$500 each to four students of University of Wisconsin Oshkosh who are traveling to India as a part of a study abroad program. The awardees are: Keelyn Behm, Jessica Michels, Carrie Orlebeke, and Krystal Pope. These students will be visiting New Delhi, Chennai and Mumbai to study health delivery systems and practice of alternative medicine during their tour. Students were selected on the basis of their academic performance and active community involvement. The fifth scholarship of \$1500 is being awarded to Rayna Andrews to support her dream of graduating with a degree in Public relations. Katrina interrupted Rayna's dreams. Xavier University of New Orleans, her alma mater is closed indefinitely. Rayna accepted the welcome accorded to her by UW-Oshkosh to complete her graduation. IndUS is proud to play a part in Rayna's pursuit of her dreams.

"Mother"? Nature?

It seems we haven't stopped responding yet to Hurricane Katrina and her evil sisters. This disaster closer to home than the tsunami of 2004, mired in enormous failures of planning, prevention and relief, will have taxed our imagination to understand what it can be like to experience it. Television images of the stranded Ninth Ward, families gallantly refusing to abandon their pets, heroic rescuers wading through the toxic waters of New Orleans, long lines of cars hastily leaving Houston, scattered Louisiana families sheltering in the astrodome, bodies floating in the water, unclaimed, unburied...have barely left us.

While we were still busy trying to help Katrina sufferers, Mother Nature struck again. This time it was the land many of us come from. The most recent figures of dead are at 79,000. This sobering statistic of deaths from the earthquake in Kashmir is hard to comprehend. But the worse is yet to come. As winter begins in the Jhelum Valley, more are predicted to die from cold and exposure, not to mention from inadequate supplies of potable water, food and medicine. The number of injured is said to be

24,000. Many in remote areas have not been reached at all. International aid is pouring in, but given the magnitude of the devastation, and the seemingly endless disasters since last December's tsunami, the world's supply of help is at a low. There aren't enough tents to go around. As our hearts go out to the suffering people of the region, who have known nothing but war and destabilized conditions along the "Line of Control," also known as "jaljalla" to the local people, the earthquake erupting along that very contested area seems a bitter quirk of fate.

Many stories are pouring in: some enormously uplifting, others suggest politics as usual. One hears of India putting differences aside in this moment of crisis and providing relief with donations, military equipment and satellite map technology. Muslim and South Asian charities too are taking up the slack as the beleaguered Red Cross finds donations down. Headmaster, Seen Muhammad of Sultandaki is trying to keep school open so his students will not be completely traumatized. But there is also the politics of disaster aid: developing countries refusing to accept

international aid, in a mistaken sense of pride is a new development in world affairs. Surely this is not the time.

IndUS of Fox Valley has risen to the occasion in its own modest way. IndUS has already contributed \$1000 to American Red Cross to render relief to the victims of Katrina. In addition, IndUS is awarding a \$1500 scholarship to Rayna Andrews a graduating senior from Xavier University of New Orleans who was mercilessly displaced by the hurricane. Rayna, Public Relations major, is now enrolled at University of Wisconsin Oshkosh. And is expected to graduate in May 2006. IndUS is proud to be a part of her success story. IndUS has also decided to contribute \$1000 to UNICEF. Our contribution, together with those from our members and well-wishers, will benefit the children in India and Pakistan who were victimized by the recent devastation wrought by the earthquake in South East Asia.

Every penny, every effort could potentially save a life, a family, bring comfort to an amputee. Mother Nature's fury too has a silver lining! In calamity, the lines that divide us into nations, races, and religions somehow become blurred. A sense of humanity asserts itself to unite us across the globe.

Dietary Practices in India

By Mona Dugal

Indian cuisine and dietary practices in India are as diverse as its civilization and people. Culture, religious and caste restrictions, economic status, weather, geography and impact of many foreign invasions in the past have influenced the eating habits of Indians.

Many Indians are vegetarians. The concept of Ahimsa (non-violence), encourages Hindus to refrain from eating meat. However, there is no Hindu commandment against eating meat. The common myth that a vegetarian diet does not provide all the essential nutrients needed for a healthy diet especially protein is not true. The

key to a vegetarian diet, just like any other healthy diet, is to eat a wide variety of foods. Due to high fiber content of Indian vegetarian diet, incidence of diseases of lower colon and constipation are less prevalent. Use of fresh sprouted beans like moong and chickpeas provides adequate vitamins C and the B-group.

Although India is strongly associated with vegetarianism, a large number of Indians are non-vegetarians. Hindus do not eat beef as cow is considered holy and pork is avoided due to Islamic influence. Chicken, fish and mutton are commonly used but only

occasionally due to high cost and limited financial resources.

Each region in India has its own traditional dishes and eating habits. The climate in India favors production of grains, rice, wheat, oilseeds, peanuts, pulses and lentils. Grains, wheat and rice supply 70% to 90 % of total calorie intake. A variety of beans, lentils, seasonal fruits and vegetables, meat, fish, eggs and dairy products are also consumed in varying amounts.

Wheat is the staple food in North. Other cereals like bajra (barley) and jowar (sorghum) are consumed in porridges and chapatti (flat bread). A typical North

Indian family meal consists of a variety of unleavened breads (Chapatti, parantha, and puri) along with one or more side dishes depending on religious and socio-economic status. Side dishes consist of pilafs (rice dishes), thick creamy dals (lentils), curried vegetables, lots of greens like spinach and mustard cooked with paneer (Indian cottage cheese), yogurt and variety of pickles and chutneys. In the South, rice is standard for every meal. It is also combined with lentils to make dosas (similar to crepes), idlis (steamed rice cakes) and served with sambhar (curried lentils with vegetables), chutney and yogurt. These rice dishes are delicious besides being nourishing and digestible due to the fermenting process used in their preparation. South Indian chutneys are made with tamarind, coconut, peanut, fenugreek seeds, and cilantro.

A wide variety of sweets and desserts are very popular all over India and are usually cooked in lot of fat. To name a few, Jalebies (luscious pretzel shaped loops fried to golden crisp and soaked in saffron syrup) are popular. Payasam, also called Kheer, is an equivalent of rice pudding and Kulfi, an exotic Indian ice cream is a favorite of all. In addition each region has its own special litany of sweets and desserts. These include a variety of milk-based dry sweetmeats called burfis and pedhas. Eastern state of Bengal specializes in producing many syrupy dairy delights with poetic names.

Traditionally, instead of fruit juices or sodas, water is the beverage of choice and thirst quencher. Coconut water straight from the nut makes a refreshing drink. Coffee is grown in Nilgiri Hills in south India and world-famous Darjeeling tea comes from Northeastern part of the country. Tea leaves are usually boiled in water and milk and served with a liberal dose of sugar. Nimbu Pani (lemonade) and Lassi (buttermilk) are also popular drinks. "Paan" is served as a digestive after some meals. It is a dark green leaf of betel plant smeared with a little bit of lime wrapped around a combination

of spices like crushed betel-nuts, cardamom, sugar and grated coconut. It is an astringent and is believed to help in digestion.

The skill of cooking Indian cuisine lies in the subtle blending of a variety of herbs and spices to enhance the flavor of a dish. Common choices include ginger, garlic, cinnamon, cardamom, turmeric, cumin, anise, mustard and fenugreek. In Europe and USA, many people believe that curry is an Indian spice but it represents varied Indian dishes that are stew like or soupy using a variety of spice blends. According to ancient Indian system of Ayurvedic medicine, all spices and herbs have been assigned medicinal values. For example fresh ginger mixed with honey and lemon juice is believed to relieve sore throat and head cold, anise seeds are used to relieve stomach pain and improve digestion, fenugreek is useful in inflammatory disorders, joint pains and diabetes, and turmeric is used to treat skin diseases.

Many traditions, customs and prejudices dictate the food choices and eating patterns of many Indians. Hindus believe that food was created by the Supreme Being for the benefit of human beings, thus growing; harvesting, preparing and consuming food are steeped in rituals. Some foods are considered innately pure, such as milk, yogurt and Ghee (clarified butter) while alcohol and beef are considered inherently polluted. Fasting is common. There are many levels of fasting. It can mean complete abstinence from food, eating "pure" foods, adopting a completely vegetarian diet or abstaining from one's favorite foods.

One of the common perceptions among Indians is the belief that certain foods are "hot" and others are "cold". There are dramatic regional differences in hot and cold food perception. Many foods considered hot in north are considered cold in south. The belief is that failure to observe rules to hot and cold theory results in sickness. Foods like eggplant, cluster beans, dried fish, meat, eggs, green chilies are considered as hot foods

and excessive intake of these foods can cause vomiting, diarrhea and abdominal pain. Tomatoes, pumpkin, greens, oranges, carrots, radishes, barley and buttermilk are considered as cold foods and increased intake can cause headaches, fever, and cold and sinus problems. It is believed that an imbalance of consuming hot and cold foods leads to disease. Heating and cooling effects are produced in the body, and hence are not related to the temperature and spiciness of food.

Women generally serve the food and may eat separately from men. The hospitality of the Indians is legendary. In Sanskrit Literature the three famous words "Atithi Devo Bhava" or "the guest is truly your God" are a dictum of hospitality in India. Indians believe that they are honored if they share their meal times with guests. Eating from a thali (a metal plate) or banana leaf is quite common in most parts in India. An Indian thali contains small bowls arranged inside the rim of the plate, each filled with a different sort of spiced food, yogurt and sweet. Rice, puries and pickle are served in the center of the thali. Indians like to wash their hands immediately before and after eating because they eat with their hands.

In conclusion, the complexities of various cuisines, traditions, customs and rituals surrounding food in India make it so very fascinating for people around the world.

Mona Dugal has a Masters degree in Nutrition from Delhi University, India. Before coming to USA she was working as a dietitian at All India Institute of Medical Sciences, Delhi, an institute of great repute. Currently she works as a clinical dietitian at the Dialysis Care Clinic in Appleton and prior to it she has worked in the same capacity at Theda Clark hospital for thirty years. According to her she has enjoyed her work and now she is looking forward to her retirement.

One of the very nicest things about life is the way we must regularly stop whatever it is we are doing and devote our attention to eating .

- Luciano Pavarotti

Holistic Healing

By Shama Jog

The word “Healing” comes from the same root as the words healthy, health, whole and holy. If we are living in perfect harmony with the whole creation we are healthy. There are different levels of our being such as body, breath, intellect, mind, emotion, ego and memory. If there is imbalance in any of these levels, then our health is not good, we are not healthy, we do not experience the wholeness/ holiness and we need healing. On the other hand, if there is a proper balance at all the levels of our being, then we are healthy; we experience wholeness and holiness. There are two types of healing methods.

1. Non- holistic or modern healing method.

2. Holistic or alternate healing method.

The non-holistic or modern healing method is Allopathy. Though the Allopathic method is effective in diagnosis, the treatment of bacterial illnesses, as well as for surgical treatment, it has its own limitations. e.g.

A) Some of these medicines create strong side effects.

B) As prolonged usage reduces the efficacy of medicines, higher doses or potency are required.

C) It treats only on the body level; i.e. it treats symptomatically rather than treating the root cause of the diseases such as Ulcer, Acidity, Blood Pressure, Diabetes, Migraine, Insomnia and Muscular Pain, etc.

Because of these limitations, people tend to use Holistic / Alternate healing methods more and more. If you practice some of these methods regularly, you may reduce susceptibility to infections and psychosomatic disorders.

Holistic forms of healing have many things to offer, which are missing in modern medicine.

There are numerous kinds of holistic/

alternate healing methods.

Ayurveda: This holistic healing method originated in India. One can learn about Ayurveda in the *Charak Samhita* compiled by sage Charak in 1000 BC. ‘Ayur’ means life and ‘veda’ means knowledge. It is believed that the five main elements in the universe e.g. fire, water, air, earth and space are also present in the human body. These elements combine to create three forces called ‘doshas’ (kafa, vata and pitta). By balancing these three doshas within ourselves, we achieve a natural equilibrium that heals the mind, body and spirit. Different types of herbs and herbal extracts, many of which are commonly found in our kitchens, are used for internal and external use. “Panchkarma,” or five cleansing ways, involves therapeutic oil bath, massage, etc. Diet is also considered very important in maintaining the balance. Diets are ‘Satvik’(pure), ‘Rajasik’(energetic) or ‘Tamsik’(impure) as appropriate for one’s personality.

Homeopathy: Samuel Hahnemann (1755-1843), a German Physician, developed homeopathy. The chemicals under this scheme are diluted to create different potencies of the medicine and only a few drops of these are mixed with sugar tablets. Thousands of such medicines are distilled, and when administered by a very knowledgeable Homeopathic doctor, can arrest and heal various medical conditions.

Bio-Chemic: In this method it is presumed that there are 12 basic chemicals in our body and if there is imbalance in one of these then the person needs healing. If one or more of these chemicals is given in a proper dose, it helps maintain a balance and illness is cured. This is administered in the form of sugar tablets or drops.

Bach Flower Therapy: Dr. Edward Bach discovered this method in Germany. He used the healing energies of thirty-eight wild flowers. They are said to cure, not only by attacking the

disease, but also by flooding our bodies with beautiful vibrations of higher nature, in the presence of which, diseases melt away as snow melts in sunshine. This method could be used by both physicians and lay parishioners. This flower-extracted medicine is diluted with water and taken a few drops at a time, or is administered externally.

Unani: This therapy is mostly used by Hakims in the northern part of India and consists of herbal medications, similar to Ayurveda.

Naturopathy: In this method of healing, people are basically encouraged to be natural in their eating and other habits since they are a part of the whole creation. It is believed that human body has natural healing capacity. If one eats organically grown fresh food, avoids chemical fertilizer grown food grains/ fruits and drinks lot of water and avoids any thing which has preservatives e.g. soft drinks or canned food, they can maintain good health.

Acupressure Therapy: In this therapy, certain points on our body are pressed for some time. It is believed that Human palm and feet sole are connected to the whole body and if some particular points are pressed then the connected part of the body gets healed.

Acupuncture Therapy: This is a Chinese way of treating a patient; in which pricking needles for some time activates certain points in the body. This helps to remove the blocks and let the energy flow properly. Only expert doctors can perform this treatment.

Magneto therapy: In this therapy some magnets are placed on the body and this helps in removing the blocks and the energy to flow. One can also use the magnets to charge the water magnetically and use the water for drinking.

Music Therapy: It is a proven fact that different type of music makes different effects on ones physical, emotional and spiritual growth. Not only humans, but animals and plants also are affected by music. Plants grow very fast, if soft and melodious music is played for them. It is said that cows give more milk in response to soft and melodious music. Different types of music are created for individual needs.

Hath Yoga: A method of yogic exercise, which is popular all over the world, and is a scientifically planned tool to enhance the level of self awareness in individuals. The ancient sage Patanjali compiled these aasanas (postures) of hath yoga and established their benefits in "Patanjali Yogasutra". One can practice hath yoga after learning the aasans from an expert teacher. Wrong postures can damage one's body organs.

Pranayam: This is an ancient form of breathing exercise. Different types of pranayam help to increase one's stamina and resistance to infections. It also helps in controlling one's negative emotions. Proper training is required to practice pranayam.

Meditation: This is a powerful tool to

increase ones' mental strength and maintain balance on all the levels. Sitting in silence with the eyes closed for a few minutes, and being totally oneself is a wonderful experience. Regular practice can be done under expert guidance.

Art of Living (Sudarshan Kriya): developed by Sri Ravishankar, an enlightened Master, this method involves simple yoga postures, breathing techniques and experiential processes, which allow us to unfold the full potential of our mind, body and emotions. The benefits are increased energy and youthfulness, better health, reduction of negative emotions, greater memory and mind power, improved stability and confidence, freedom from past emotional trauma, happiness and inner peace.

Reiki: It is believed that we are part of the Universal Force energy and we can receive this energy. After initiation, one can receive this energy to heal oneself and others.

Pranik Healing: This system attempts to tap into the universal life energy (prana) to achieve health and wellness.

Water Therapy: In this therapy 1.25

liter of water is taken first thing in the morning every day. This helps in washing away the toxins accumulated in the body, which create illnesses. Expert advice is required before this therapy is started.

There are many other alternate healing methods, which are used in various parts of the world. Holistic forms of healing have many things to offer, which are missing in modern medicine.

Though each method of holistic healing is complete in itself, a combination of more than one holistic method can be used and practiced simultaneously, as holistic methods are supportive of each other. In certain cases, holistic forms of healing may be used simultaneously with conventional modern medicine.

Shama Jog resides in Pune, India. Teaching deaf children is her passion. She was the Principal at a school for the deaf in Mumbai for 10 years and has won many prizes for producing one act plays for hearing impaired children in inter-school drama competitions. She is a great believer in alternate medicine and ayurvedic way of living. She is a Reiki master teacher and has been teaching Reiki for the last few years. She also practices Sudarshan kriya of art of living, yoga and meditation regularly.

Health of South Asians in West-Myths and Realities

By Dr. Sudeep Sodhi

The health related issues of immigrant Indian population is a fascinating study of human migration and biological anthropology. The first people from Indian subcontinent arrived in USA around 150 years ago. Since then, the socio-political landscape both at macro and micro level has changed significantly. This has been studied very well in the case of other immigrant (Afro-Americans) and displaced (Native Americans) communities who have not only paid an enormous cultural price but also have struggled with a biological onslaught of unfamiliar macronutrient habits. High incidence of diabetes and

hypertension in these communities and their high mortality with these diseases is well documented.

People from South Asia and in particular, from the Indian subcontinent are victims of their own success and "model minority" myth. The relatively higher socio-economic status of a smaller segment in South Asian population tends to eclipse the problems of a growing but not-so-affluent section of these communities. During 1990-2000 US population grew by 13% as compared with growth of South Asian population by 106%. The rate of uninsured among

South Asians is 21%. Twenty per cent of Asian Indians in USA have limited proficiency in English language. There are significant differences at every level between individual health and public health issues among Caucasian and immigrant South Asian populations.

The disease burdens among South Asian Americans are many, such as diabetes, hypertension, coronary artery disease (CAD). Here are some of the statistics. About 50% of all heart attacks among Asian Indian men occur under the age of 55 and about 25% occur under the age of 40. Asian

Indian women have higher death rate from CAD than all other ethnic minorities in UK. The death rate from CAD among Asian Indians, living overseas is 50-300% higher than Caucasians irrespective of gender, religion or social class. The death rate in young patients from CAD is heavily skewed against South Asians to a factor of three. Diabetes is 4-5 times more likely to develop among South Asians than Caucasians. Compared to Caucasian children South Asian children have a higher average level of insulin and insulin resistance, which indicates high prevalence of diabetes.

The above sobering statistics give rise to many questions. Answers are not forthcoming due to multiple reasons. Although there is ample data on the financial well-being of south Asians, there is hardly any study on disease patterns and their causes. It was in 2002 that United States Congress approved 500,000 dollars to study incidence of diabetes in Indian Americans. The fact is that there are inherent genetic differences in individuals from the same ethnic origin and even in twins. It would not be fair to apply the same health parameters to an entire ethnic group with a significant diversity within that group. To homogenize Caucasian health issues with any immigrant community would be equally inappropriate.

In fact, a theory of fetal origin hypothesis developed in South India indicated that low birth weight, short birth length and small head circumference are all associated with a higher prevalence of CAD. Studies show that the higher cardiovascular incidents among South Asians stem from a manifestation of metabolic syndrome with insulin resistance, low HDL (high density cholesterol or good

cholesterol), high triglycerides. This is different from the Caucasian population with predominant high LDL (low density cholesterol or the bad cholesterol). Indian Americans have a predisposition to central obesity (higher waist to hip ratio) which differs from the body mass index, calculated from height and weight and is the common measure of obesity applied by the doctors in America. We can have the cardiac risk factor even when one has a size 16 midriff and a near normal body mass index. Conventional risk factors for heart disease like smoking and increased LDL cholesterol are less prevalent in South Asian Indians and are unlikely to explain the increased death rate from CAD. The recognition and treatment of diabetes is taken very lightly in most groups. This involves treatment of diabetes with a namesake diet control, no weight loss and hardly any medical follow-up. Perhaps the stigma attached to the disease does not help. Other findings from studies indicate that there are less discretionary physical activities in South Asian immigrant population. Lack of awareness of the problem and its magnitude among even the well educated segments remains a big problem.

So what can we do about it? For practical purposes we should have lower desirable limits of serum cholesterol and dietary fat intake than recommended values for the Caucasian population. The clinical end point trials will be required in studies among South Asians to define the best parameters in the group to reduce risk of CAD.

We also need to get off the high pedestal we have parked ourselves on regarding our food habits and comparing them to Caucasian

population. Our dietary advantage is associated with vegetarianism rather than region of origin in South Asia. This is quickly negated due to the fact that excessive cooking destroys antioxidants and fried foods raise the dietary fat intake much more than the predominant non-vegetarian food.

The bottom line is that we need to be more aware of our susceptibility to various disease processes, recognize the problem, their magnitude and how to deal with them. This warrants change at personal level as well as social behavioral changes among communities, health policy makers and health practitioners by recognizing differences in health issues in various ethnicities. Risk management of CAD factors for South Asians need to be better studied. As individuals we need to be aware of our higher risk of CAD at a lower level of risk factors. Social changes to improve access to health care and to overcome linguistic barriers are needed even for so called "model communities". Legislative committee of American Association of Physicians of Indians Origin is actively involved in lobbying the congress for more funding for research and education on these issues.

As a community we need to encourage awareness for proper food habits and increased physical activities in our community gatherings rather than making a beeline for the *samosas*. We must stop associating obesity with '*changi sehat*' (good health). Perhaps having an ample belly may indeed not be a sign of good fortune, as is popularly recognized in our circles.

Author is a Gastroenterologist in Appleton, Wisconsin. He is a member of legislative committee of AAPI which is lobbying this issue in United States Congress. According to the author this article is a guideline only and the best individual advice is provided by one's own physician.

"To keep the body in good health is a duty, otherwise we shall not be able to keep our minds strong and clear."

- Gautam Buddha

"Health is a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity."

- Anonymous

"The only way to keep your health is to eat what you don't want, drink what you don't like, and do you'd rather not."

- Mark Twain

Conquest of Cardiovascular Disease

By Dr. Ram Turlapati

Cardiovascular disease, that is, combined coronary heart disease and vascular disease, are both highly prevalent and substantially preventable. A total of 64 million Americans have cardiovascular disease. It has been the leading cause of death in the United States for the last 100 years, and is now the leading cause of human death in the world. A child born in the United States today has a 47 percent chance of dying from cardiovascular disease. In 2004, the estimated economic burden of CVD in the United States was 368 billion dollars.

Currently, 13.2 million Americans (6.5 million men and 6.7 million women) have documented coronary artery disease (CHD) and asymptomatic disease is even more prevalent. Every year about 1.2 million Americans develop heart attack and among them 185,000 die annually. By the year 2020, it is estimated that CHD will become the leading cause of death in the world.

Historical Perspectives.

CHD (coronary heart disease) has been known for more than 3,000 years. The disease was relatively rare before the late 1700s, but jumped when industrialization brought about dramatic lifestyle changes, including: 1) Increase in dietary fat, cholesterol and salt, 2) Widespread obesity, 3) Use of tobacco products, 4) Marked decrease in physical activity. In the year 2000, tobacco use caused 435,000 deaths and diet and physical inactivity caused 400,000 deaths. During the first half of the 20th century, the prevalence of cardiovascular disease (CVD) in the United States increased from approximately 170 deaths per 100,000 to more than 300 deaths per 100,000.

Major Risk Factors.

Age is a major risk factor. Age more than 45 in men and more than 55 years in women is considered to be a risk factor.

Gender- Heart disease is more common in men than in women.

Family History of premature heart disease, that is, men less than 55 years, women more than 65 years in a first degree relative substantially increases the CVD risk.

Hypercholesterolemia- Numerous studies have demonstrated reduction in heart attacks by lowering total and LDL cholesterol. Recommended LDL cholesterol is less than 100 mg/dl and the HDL more than 60 mg/dl with a total cholesterol less than 190 mg/dl.

Hypertension - Blood pressure below the range of 120/80 mmHg is acceptable. It affects 50 million Americans. It is the leading cause of stroke and contributes significantly to coronary artery disease.

Diabetes Mellitus- A fasting blood sugar count of less than 100 mg/dl is recommended. Diabetes affects 5 to 10 percent of the American population. One third of the diabetics may be unrecognized and there is often a delay of five to six years until the diagnosis of diabetes is made, with many individuals manifesting complications at the time of the diagnosis. About 50 percent of all diabetics have silent heart disease without symptoms. Diabetes is a rapidly growing disease in America as well as in the world and it is expected that one in three children born will develop diabetes in their lifetime. Diabetes (non-insulin dependent) increases the cardiovascular risk almost equivalent to individuals with established heart disease.

Obesity greatly increases the risk of coronary artery disease, hypertension, and diabetes mellitus. Being overweight (BMI 25 to 30 kg/square meter) increases the CV risk mildly, but obesity (BMI more than 30 kg/square meter) increases the risk about fourfold. Currently, 33 percent of Americans are overweight and another 31 percent are obese hence, 64 percent of Americans are overweight. The

abdominal or male pattern of obesity correlates more closely with the heart disease, hypertension and diabetes mellitus. Obesity increased threefold in the United States in the last 30 years.

Physical Inactivity- Physical activity has beneficial effects on all the modifiable risk factors as well as on the atherogenic process. Lack of activity is therefore, a major risk factor for cardiovascular disease in America.

The following risk factors frequently co-exist and if three factors are present in the same individual, it is named as metabolic syndrome. These factors are: (1) Abdominal obesity – waist circumference more than 40 inches in men and more than 35 inches in women, (2) Insulin resistance – fasting glucose more than 100 mg/dl, (3) Triglycerides more than 150 mg/dl, (4) HDL less than 40 in men and less than 50 in women, and (5) Hypertension – blood pressure more than 130/85 mmHg.

Clinical Symptoms.

Typically the patient suffers chest pain or angina. This is felt in the central part of the chest often radiating to the left arm or to the left side of the neck, mostly associated with exertion. Sometimes the episodes are associated with shortness of breath and also perspiration. Typically, the chest pain comes after exertion and lasts for a few minutes and is relieved by rest.

Diagnosis.

The diagnosis is made mostly by clinical history, electrocardiogram and a stress test with imaging studies. Once the above tests are abnormal, coronary angiography is recommended to find the extent of the narrowing of the blood vessels of the heart.

Treatment of CVD.

(1) Modification and control of risk factors. (2) Medical treatment with beta blockers and calcium channel blockers and nitrates, as well as aspirin (3) Invasive procedures such as

angioplasty and stent procedures. (4) If it is not amenable to the above procedures, coronary bypass surgery is recommended.

The above treatment options depend upon the extent of the narrowing of the heart arteries and also the function of the heart and other existing medical conditions in each individual.

Prevention of Cardiovascular Disease

Since we have learned more and more about the risk factors of cardiovascular disease, the challenge now is how to prevent the disease.

Besides addressing the individual risk factors with medical therapy, the main goal is to adopt a healthy lifestyle, that is, to address diet, weight, and exercise. Giving up smoking is also the most important modification in the lifestyle to prevent cardiovascular disease.

Obesity contributes to coronary artery disease, diabetes mellitus and hypertension. The major cause of this recent increase in obesity is a 150 to 200 calorie increase in our daily calorie intake, mainly from snacks. A dietary increase of 140 calories per day, that is, (one can of soda) can add up to one extra pound in less than a month and 15 pounds in a year. A decrease in physical activity associated with more television viewing has also been contributory. A third factor has been an increase in sugar consumption, which now averages 150 pounds per person per year. This also contributes to an increased prevalence of Type II diabetes. Obesity associated with three other factors in the metabolic syndrome mentioned above, carries two to fourfold high risk for cardiovascular disease. Hence, weight loss is to be addressed with a low fat, low carbohydrate and low calorie diet with increase in physical activity. According to the Center for Disease Control and Prevention, the minimal level of physical activity that can produce health benefits is moderate intensity physical activity for 30

minutes or more on five or more days per week. This includes brisk walking, dancing or swimming for recreation. Extremely obese patients may have to start with 10 minutes of walking or relaxed swimming per day and work up to a minimum recommendation.

A one- mile walk or jog is equivalent to about 100 calories burned. The most successful weight loss programs include calorie restriction, exercise and group support.

The diet recommended for coronary artery disease is one that is high in fruits and vegetables, beans, whole grain carbohydrates, nuts, fish, and mono and poly unsaturated oils like olive oil. Dairy products are consumed in low to moderate amounts and a little red meat is recommended.

Weight loss is often an important part of the management of the coronary artery disease, diabetes and hypertension. Even modest weight reduction is beneficial. Excessive weight increases LDL (bad cholesterol) and triglycerides, and decreases HDL (good cholesterol). Weight loss only occurs when calorie intake is less than calorie expenditure. The daily calorie requirement for sedentary and physically active individuals is about 12 and 15 calories per pound of ideal weight respectively.

Overall, prevention of coronary artery disease lies in one's own hands. The first and foremost thing is to "adopt a healthy lifestyle." For the prevention of coronary artery disease I usually recommend A, B, C, D, and E, to my patients. ABC stands for Always Be Conscious of, Diet (low fat, low cholesterol, low carbohydrate, adequate calories,) with Exercise (30 minutes walking a day).

The above will keep the BMI (body mass index) within normal range, i.e., less than 25 kg per square meter. If this healthy lifestyle is not practiced, heart disease will be manifested as the accumulation of FAT which is easily recognizable.

Dr. Ram Turlapati is a Board certified cardiologist and is a Fellow of the American College of Cardiology. His main interests lie in preventive cardiology and geriatric cardiology. He is also a board certified cardiologist from Delhi University, India.

Honors and Recognitions...

Mr. Shekar Rao, President of Synchrotek has been recognized for "Wisconsin Small Business Innovation Award for Outstanding Achievements" for the year 2005. Each year Wisconsin Business Innovation Consortium (WISBIC) gives Technology Award to corporations in recognition to their contribution to US Federal Research & Development projects. This year SBIR award was given to Synchrotek for its R&D undertaking for a US Navy Defense project.

News ...

Foods of All Nations - A Multicultural Event

Downtown Appleton buzzed with people from origins in many countries who now call Wisconsin their home. Fox Cities Rotary Multicultural Center (FCRMC) sponsored "Foods of All Nations" on September 17th, 2005. IndUS members were involved in prominent leadership roles. Kamal Varma was a Co-Chair of this year's event. Besides her Ramakant and



- Photo by Badri Varma

Aruna Shet, Sandhya Sridhar, Ashok Tannan, and Badri Varma, chaired different committees. Several other IndUS members worked as volunteers to make this event a great success.

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This outdoor party was a feast for all senses: a bright sunny day, aromas of flavorful foods from over twenty countries spanning the globe and music in the air.

Colorful ethnic costumes from various countries, including the flamboyant Oneidas were a sight to behold. The cultural program included dances from Dominican Republic, Haiti, Hmong, Honduras, India, Oneida and Mexico, interspersed with songs from India and Ireland and two lively bands playing American, Thai and Laotian music. Arishna Agarwal, Abhipsa Kar and Julia



- Photo by Badri Varma

Shariff delighted the crowd with dances from India. Dileep Tannan and Shreekant Shah sang a medley of fast beat Hindi songs followed by a Kannada song by B. S. Sridhar. Peta's band Unity truly captured the spirit by rousing many to their feet dancing for the finale.

Tsunami Reconstruction and IndUS: Visit to Sothikuppam, Tamil Nadu

Dr. B. S. Sridhar, President, and Dr. Sandhya Sridhar, Member, Tsunami relief Fundraising Committee visited Sothikuppam in Tamil Nadu, India on August 11-12, 2005, to get a first-hand assessment of relief work undertaken over there. IndUS, in collaboration with Time Warner Cable, Neenah Joint School District, several other schools and individuals had raised \$35,000 toward post-tsunami reconstruction work in Sothikuppam village. The relief work being implemented in collaboration with Rotary Club of Aurocity was found to be



- Photo by B. S. Sridhar

satisfactory and discussions are afoot for future relief and reconstruction work. Dr. Ram Shet, member of the Board is planning to visit the village in January 2006, for follow up action.

Health & Wellness in India

A Fact Sheet

Total Population: 1,027 million.

Rural Population: 72% & Urban: 28%.

Under 14 year age: 34%.

Over 65 year age: 5%.

Birth Rate is stable at 2.48%.

Death Rate is steady at 0.89%.

Sex ratio 927 females to 1000 males.

Life Expectancy is 52.8 years for males and 53.5 years for females.

Literacy Rate (a significant factor for health care practices): 75% for males & 54% for females.

Infant Mortality Rate: 72 per 1000 births

Maternal Mortality Rate: 54 deaths per 10,000 live births.

Physician to Patient Ratio is 11 to 20,000.

Nurse to Patient Ratio is 1 to 2083.

Hospital Beds to Patients Ratio is 1 to 1357.

Total Health Expenditure 5.1% of GDP.

Govt. Expenditure on Health 5.6% of total budget.

Govt. health sector 18% of the total.

Private health sector 82% of the total.

(Data from Govt. of India Census-2001)

Annual Membership Dues

(Per calendar year)

Please select your preferred category of membership and place an "X" in the appropriate box.

- ☐ Individual Member \$ 10.00
- ☐ Family Member \$ 20.00
- ☐ Benefactor \$ 100.00 to
 \$ 499.00
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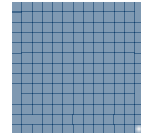
Please make your check payable to IndUS of Fox Valley and mail it to: IndUS, 3600 North Shawnee Avenue, Appleton, WI 54914.

Join the IndUS Team!

Name	
Address	
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Would you like to volunteer?	☐ Yes, Please contact me. ☐ No, Not now.



**IndUS
Of
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IndUS 2005

***Health & Wellness:
Perspectives from India***

**Saturday
November 12
At
University of
Wisconsin Oshkosh**

Details Inside