

نمک: ذائقہ اور توازن Salt Intake

مہرین عامر

بگن میں اور کھانے کی چیز پر:

کھانے کے بہت ساری ترکیبوں میں نمک کا نام استعمال کیا جاتا ہے اور بعض لوگ کھانے کے دوران انسانی نمک کا استعمال کرتے ہیں۔ بیشتر معالجہ جات میں بھی سوڈیم پایا جاتا ہے۔ مثال کے طور پر ایک کھانے کے کچھ سویٹس میں تقریباً 1000 ایم اے کی سوڈیم موجود ہوتی ہے۔

سوڈیم کی مقدار کم کرنے کی چند ترکیب:

تازہ پھل اور اجناس کا اضافی استعمال:

بیشتر تازہ پھل اور سبز میں سوڈیم کی مقدار قدرتی طور پر کم ہوتی ہے۔ اس کے علاوہ تازہ گوشت میں بھی سوڈیم کم ہوتا ہے۔ بغیر نمکی چیزوں کے استعمال سے بہتر ہے کہ سادہ اجالہ یا پائستہ استعمال کریں۔ کھانا پکانے کی ترکیبوں میں نمک جس حد تک ہو سکے کم کریں۔ اس کے علاوہ دیگر اشیاء مثلاً چائنی، سویٹس، مشروبات کی ڈریسنگ، کچپ وغیرہ جن میں نمک کی زیادتی ہوتی ہے ان سے پرہیز کریں۔

کھانے کے ذائقے کو برقرار رکھنے کے لئے تازہ یا خشک جڑی بوٹیوں اور اجالہ کے استعمال کو اپنا معمول بنا لیں۔ اس کے علاوہ دیگر کچھ کھانے کی چیزوں میں بھی سوڈیم کی اتنی ہی مقدار ہوتی ہے جتنی کہ روزمرہ کھانے کے نمک میں۔

بندرتی کی:

چونکہ آپ کو نمک کے تناسب کی اہمیت کا اندازہ ہے تو آپ کو نمک والے کھانے کی افادیت کو سمجھنے کے ساتھ ساتھ اس کا انڈیکس بھی پتہ کر سکتے ہیں۔ روزانہ نمک کے استعمال میں بندرتی کی آپ کو اس خصوصیت کا اندازہ عادی بنا دے گی۔ یہاں تک کہ کچھ ہفتے گزرنے کے بعد آپ کو نمک کی کمی محسوس نہیں ہوگی۔ اس روشنی کے آغاز سے آپ کھانے کے استعمال میں نمک کی مقدار کم کرنے کے کچھ مقررہ کر لیں۔ کھانے کی چیز پر سے نمک دانی بنا لیجئے۔ آپ خود محسوس کریں گے کہ نمک کا استعمال کم کرنے سے نہ صرف اس کی طلب میں کمی ہوگی بلکہ اس سے آپ کھانے کے ذائقے اور صحت بخش اثرات سے محفوظ ہوں گے۔



نمک زندگی کی ایک اہم ضرورت ہے جسے مصنوعی طریقہ کار سے پیدا نہیں کیا جاسکتا۔ اسے کیڑائی زبان میں سوڈیم کہا جاتا ہے۔ یہ ہمارے جسم کے معدنیات کا توازن بحال رکھنے میں مدد دیتا ہے لیکن نمک کے زیادہ استعمال سے بلڈ پریشر اور دل کی امراض ہونے کا خطرہ ہوتا ہے۔

ایک مطالعہ ادارے کی تحقیق کے مطابق ہر سو ڈیڑھ گرامی امراض مثلاً بلڈ پریشر، دل کی امراض اور گردے کی نالیوں وغیرہ کا خطرہ نمک کا استعمال کم کرنا چاہئے۔ بلڈ پریشر اور دل کی امراض استعمال کرنے والوں کو نمک کے استعمال میں مزید کمی کرنی چاہئے۔ اس کے علاوہ آپ جسمانی طور پر مستعد ہیں تو بہتر ہے کہ آپ ہر روز دل کے لئے اپنی روزمرہ کی خوراک میں نمک کا استعمال قدرے کم کریں۔

سوڈیم: آپ کو کتنی مقدار روکنا ہے؟

2010 کی خوراک سے متعلق امریکی گائیڈ لائنز میں یہ مشورہ دیا گیا ہے کہ سوڈیم کا استعمال 2300 ایم اے (ایک چائے کے چمچ) سے کم ہونا چاہئے۔ تاہم اگر آپ کی عمر 50 سال یا اس سے زیادہ ہے، یا اگر آپ بلڈ پریشر، دل کی بیماری یا گردے کی بیماری میں مبتلا ہیں تو 1500 ایم اے روزانہ کے حساب سے زیادہ نہیں ہونا چاہئے۔ آپ کے ذہن میں یہ مشورہ دینا چاہئے کہ یہ حدود بالائی تناسب کے اعتبار سے ہیں اور بہترین مشورہ یہی ہے کہ آپ سوڈیم کا استعمال ان حدود سے کم ہی کیجئے خصوصاً اگر آپ سوڈیم کے کئی اثرات کے زیر اثر ہیں۔ اگر آپ اس کے متعلق حذب ذہب ہیں کہ آپ کی روزمرہ کی خوراک میں نمک کا تناسب کیا ہونا چاہئے تو آپ اپنے ڈاکٹر یا ڈیٹا سائنس سے مشورہ کیجئے۔

سوڈیم: خوراک کے اہم حصول۔

خاص طریقے سے تیار کیا گیا کھانا:-
خصوصی طور پر تیار کردہ جن کھانوں میں نمک کی مقدار زیادہ ہوتی ہے ان میں ڈبل روٹی، پاستا، گوشت، مہو، پنیر، سوپ، انڈے سے تیار کردہ ڈشز اور فاسٹ فوڈ شامل ہیں۔

قدرتی ماخذ:

کچھ کھانوں میں قدرتی طور پر سوڈیم موجود ہوتا ہے جن میں بعض سبز اور دودھ سے بنی ہوئی اشیاء شامل ہیں۔ مثال کے طور پر ایک کپ کم چکنائی والے دودھ میں تقریباً 100 ایم اے سوڈیم ہوتا ہے۔ چونکہ ان چیزوں میں سوڈیم پہلے ہی سے موجود ہوتا ہے لہذا ان چیزوں کو استعمال کرتے ہوئے آپ کو بات ذہن میں رکھنی چاہئے کہ سوڈیم کی مقدار مقررہ حد سے زیادہ نہ جائے۔

Smoking Cessation

Combat against the Tobacco Epidemic: THI Joins in



Studies show that the use of Tobacco increases the risk of lungs, heart diseases, cancer and stroke several times. Smoking not only poses a threat to the smokers but also constitutes risks to non smokers in terms of polluting the environment. Every year 600, 000 children in the world die because of passive smoking, according to WHO report.

We are very pleased to introduce at Tabba Heart Institute, Smoking Cessation Clinic, another step towards prevention of cardiac diseases and other multiple health issues. The clinic will be held on every Tuesday, from 2:30pm - 5:00pm.

For appointment and further information, please contact 111-844-844, Ext 300.



A state-of-the-art Cardiac Hospital
WHERE YOU MEET CARING, FRIENDLY PEOPLE

Tabba Heart Institute
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HEART BEAT

Issue 14, July 2011

A Quarterly Magazine for the Faculty & Staff of Tabba Heart Institute

Non Invasive Cardiac Test Modalities

Tabba Heart Institute's Non-Invasive Cardiology Department - a state of the art facility that provides high quality authentic test results as well as excellent patient care.

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HYPERTENSION (High Blood Pressure)

The Silent Killer page 9

From Editor's Desk

Warm Greetings to our dear readers! We are here with yet another issue of Heartbeat; and all credit goes to all my Editorial board members, especially Ms. Sadia Abbas who put in a lot of hard work behind compiling this issue. I also thank and welcome our new member of the Editorial board Dr. Nousheen Riaz, who has been a great support in writing the cardiology articles.

This edition of the newsletter is an exciting one. As following the famous adage 'Change is the only thing that's permanent', we have tried to make a few basic design and layout changes which we, at the Editorial Board, felt were necessary; as quite a few of our readers, in our last survey about the quality of content and design of Heartbeat, expressed their wish to have some improvement in the layout of the magazine. This issue has a Cover Page and index, giving a synopsis of the whole issue and a new and improved text layout with the sole objective of making experience of reading Heartbeat more interesting and pleasant.

It is the aim of Tabba Heart Institute to educate and impart knowledge about ways of preventing the onset of cardiovascular disease. Thus, this issue's cover story talks about Hypertension or High Blood Pressure, one of the most serious risk factors for Cardiac disease and ways for its prevention.

We welcome your feedback and would like to hear what you think of this new design of the Heartbeat. You can send your feedbacks to editorial@tabbaheart.org

Have a pleasant reading!
Until next time

Fahad Anwer
Editor

Board Members
Farzana Amir Hashmi
Sadia Abbas
Dr. Nousheen Riaz
Zeeshan Butt
Mehreen Amer



Hypertension Day 09 Cover Story



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by Mehreen Amer

DEPARTMENTAL PROFILE

Department of Biomedical Engineering Management of Hospital Equipment @ THI

Biomedical Engineering is the application of engineering principles and techniques to the medical field. This field seeks to close the gap between engineering and medicine. It combines the design and problem solving skills of engineering with medical and biological sciences to improve healthcare diagnosis, monitoring and therapy.

Biomedical engineering has recently emerged as its own discipline; much of the work in biomedical engineering consists of research and development, spanning a broad array of subfields. Prominent biomedical engineering applications include the development of biocompatible prostheses, various diagnostic and therapeutic medical devices ranging from clinical equipment to micro-implants, common imaging equipment.

Biomedical Equipments require periodic maintenance, calibrations and at times repair as well. This implies the formation of a Biomedical Engineering Department within the hospital facility. The Bio Medical Engineering Department is an important technical wing of Tabba Heart Institute. The main responsibilities of this department are to give technical support and ensure on time rectification of malfunctions in Life Saving Equipments such as Angiography Machines, Gamma Camera, X-Ray Machine, Echocardiography Machines etc. The department also ensures that the state of art equipments adopted by THI are being operated in their correct way, as such offers technical advise and guidance to the operators. Every effort is also being made here to get updated with latest break through and technical advancements of bio medical

equipments. All technical details and specifications, the inventory of Bio Medical Equipments are being kept in this department.

Biomedical Engineer has become the equipment manager, helping health providers for the acquisition of technology, and then ensuring its safe, continued efficient utilization through a well planned program of user training, maintenance and quality assurance, thus playing a vital role in the safe and effective implementation of health care technology. The goal of Biomedical Engineering Department is to provide safe, calibrated and operational equipment for delivery of the best health care possible. An effective program will reduce the inconvenience and frustration caused by malfunctioning equipment and the time lost because of non-availability of equipment.



Biomedical Engineering Department of THI is also responsible to perform the following functions to accomplish efficient equipment management.

- Management and performance of Breakdown Maintenance (Repair) of biomedical equipments.
- Management and performance of Planned Preventive Maintenance of Biomedical equipments.
- Calibration, Performance verification and certifications of biomedical equipments.
- Utility certification: During installation of sophisticated equipments, Biomedical Engineers assess the utility needs of equipments. tonnage of AC, electrical power, drainage system required and generate feasibility report.
- Planning & installation for all types of sophisticated Bio Medical Equipments.
- Creation of Computerized database: dynamic software for maintaining work-order, inventory of equipments, preventive maintenance schedule and technician time.
- Pre purchase evaluation & Negotiation in Procurement: Analysis of equipment characteristics in clinical environment ensures technical and clinical acceptability.
- Incoming inspection of equipments: Using specialized testing and calibration of equipments for electrical safety, proper calibration and operational verification.
- Planning and procurement of spare parts required for BM/PM/PPM.

EVENTS

Anesthesia Conference

The department of Anesthesia at Tabba Heart Institute organized an Annual Symposium on Cardiac Anesthesia, in collaboration with Pakistan Association of Cardiothoracic Anesthesiologists (PACTA), on March 23, 2011. The objective of the symposium was to highlight recent advances in the treatment of cardiac and thoracic diseases, and impact of these changes in management of patients on cardiac anesthetic techniques.

The event was well coordinated and was attended by senior anesthesiologists, distinguished cardiac surgeons and other reputed members of the association. The speakers included Dr Shahid Sami, Dr Khalid Rasheed, Prof Najma, Prof Sadiqa, Dr Zameer Rajput, Dr Hamid and others. The discourse highlighted various aspects of anesthesia, perfusion, nursing and intensive care management of cardiac patients.



International Nurses Day

International Nurses Day is celebrated around the world, marking the anniversary of Florence Nightingale's birth. Tabba Heart Institute (THI) celebrated an entire week of activity in context of International Nurses Day, themed "Closing the Gap: Increasing Access and Equity", focusing on various aspects of general and cardiac health.

Community discourses were offered in THI Atrium on Diabetes, Blood Pressure, Introduction to Cardiac Diseases, Risk Factors, Infection Control Practices, Cardiac surgery, Angiography & Angioplasty, Pre and Post Operative Precautionary Measures etc, followed by question and answer sessions, and witnessed enthusiastic participation of the audience. Lectures on Breast Cancer, (exclusively for female staff of THI) and BLS were also conducted by NES department at ART Auditorium. A poster competition was held amongst the THI nursing staff. The winners of the poster competition were given cash prizes on the concluding day.

In addition to that, two Breast Cancer Awareness sessions were conducted at Madar-e-Millat College, and Memon Foundation, Hussainabad; both the sessions were very well attended and appreciated by the participants as well as the Managements of the institutes.

This weeklong activity culminated on Saturday, May 14, 2011; THI organized a seminar where prominent personalities from the nursing fraternity shared their views on the significant role of nursing in the healthcare industry and on what needs to be done to keep that vital role going. Dr. Bashir Hanif, Medical Director THI discoursed on how Nurses create healing environment for patients by applying their expertise and interpersonal skills. Ms. Amtul Anees, Principal, School of Nursing, attended as Guest of Honor, and also spoke about the role Nurses has played around the world in providing care to the patients.



Screening Camps

The management of Tabba Heart Institute continuously strives to promote community participation and involvement in public health awareness programs. In this context, THI organized free screening camps at various locations, with an objective to escalate awareness among people about their health, and protection from cardiac ailments.

Onsite screening for Blood Pressure, Blood Sugar (Random and Fasting), Cholesterol and Hepatitis B & C was offered at Gulistan-e-Jauhar, North Nazimabad and Adamjee Laboratory Collection Units, and Dhorajee Association during the months of March, April, and May 2011. More than 2000 people visited the camps and got themselves screened.



In addition to carrying out various tests, the public were educated about cardiac ailments, their symptoms and preventive measures. Stalls were arranged for general facilitation and counseling about risk factors like smoking, diabetes, imbalanced diet and infection control practices. Informative literature related to cardiac health, guidelines for cardiac friendly diet and other brochures related to hospital services were distributed to the visitors.

Hypertension Day

World Health Organization attributes Hypertension or high blood pressure as the leading cause of cardiovascular diseases. Globally, over 1.5 billion people suffer and 7 million people die each year from this silent killer that unfortunately has no specific symptoms.

World Hypertension Day is commemorated on May 17, to highlight the prevention strategies, and to communicate them to the public. THI held three day celebrations of the event, in collaboration with Pharmevo Pakistan, Pfizer Laboratories, Highnoon Laboratories and Merck Laboratories. Keeping in line with the current year's theme, "Know Your Numbers and Target Your Blood Pressure", THI organized free blood pressure screening for general public and informative lectures on the ill effects of high salt intake, significance of healthy food, treatment of hypertension and life style modification.

Over 300 people got screened and attended the sessions, and were greatly facilitated by the fruitful discourse as their queries and concerns were addressed to their satisfaction.



Heart Valve Reconstruction at THI

It is an establishment fact that heart valve repair is a superior operation than heart valve replacement. This preserves and improves the quality and quantity of life of the patient as proven by many studies in the literature.

The cardiothoracic unit at THI is doing more heart valve repair operations than any other centre in the country.

Prof. Meong Gun Song of Knokuk International University Seoul, South Korea has devised unique techniques of mitral and Aortic valve repair called COMVAR for mitral and CARVAR for Aortic valves.

Dr. Khalid Rasheed and Dr. Ghufuranullah Khan went to South Korea to learn and orientate themselves with this innovation. It is heartening to say that COMVAR

and CARVAR operations have been started at THI and our surgeons have performed more than thirty mitral and aortic valve repair procedure with excellent results. At this time beside South Korea, THI, Karachi is the only cardiac care center in the world where these procedures are being performed.

In these new techniques the patients own valves are repaired or reconstructed with the help of specially preserved animal tissue (bovine pericardium) and some specially designed Dacron rings and bands. Every repair is then checked by performing an intra operative transesophageal echocardiography.

The faculty of cardiothoracic surgery is also planning to hold a live heart valve repair conference with Prof. Song as the guest of honor in the month of December 2011.

Achievement of Tabba Heart Institute

THI has been granted recognition as centre of examination for **Certified Infection Control** and multi discipline. An active member of JICP and ICN Ms Shaheen Asif, who has attended various national and international conferences as a Speaker, will conduct this exam. THI Department of Infection Control will also guide the candidates interested in **Certified Infection Control & Epidemiology**.

Ms. Shaheen Asif

Presented her Research (online)

- Views And Experiences Of Infection Control Nurses In Karachi , Pakistan (3rd World Country) in NATIONAL EDUCATION CONFERENCE CHICA, Canada, May 2011

- Infection Prevention in Pakistan, Dubai, UK
- Achieved Infection Prevention Advance Certification from California Board of Registered Nursing (CBRN).

Research Highlights

- Case Report Publication: Supracristal Ventricular Septal Defect With Severe Right Coronary Cusp Prolapse. JPMA. June 2011.
Ayaz Hussain Shaikh, Bashir Hanif, Ghufanullah Khan, Khursheed Hasan.

Farewell to COO

THI bade Farewell to Mr. Mohammad Yousuf, COO, on March 25, 2011, at Abdul Razzak Tabba Auditorium. The event wore a sober look as the COO was parting ways after spending five long years with the organization. The senior management and staff, shared their wonderful experience of association with the COO, who in his final speech relived the unforgettable memories that were created during his tenure at THI and thanked everyone for the love and admiration he received during all those years.

The management of THI wishes Mr. Yousuf all the best in future.



LAUGH CORNER



"Support bacteria-they're the only culture some people have."

"Every one has a photographic memory. Some don't have film."

"Laughing stock- Cattle with a sense of humour."

"For sale: Parachute. Only used once, never opened, small stain"

by Riaz Ahmed

Stork Visits

Dr. Shahid Khanzada
Medical Officer – Surgery
had a baby girl.

Mr. Asifullah Khan
Senior Inventory Officer – MMD
had a baby boy.

Mr. Shahnawaz
Shift Incharge – Engineering
had a baby boy.

Ms. Nargis Abdullah
Technician – CSSD
had a baby girl.

Ms. Aisha Sherat Khan
Clinical Admin Assistant – MD Secretariat
had a baby girl.

Ms. Farhat Hadayat
Registered Nurse – Nursing
had a baby boy.

Mr. Aftab
Security Guard – Safety & Security
had a baby boy.

Bereavements

We share the grief of

Dr. Shahid Khanzada on his father's death

Dr. Irfan Ellahi Chandna on his mother's death

Dr. Majid A. Jawad on his mother's death

Mr. Daniel Gill on his father's death

Mr. Abdul Mujeeb Khalili on his father's death

Welcome to THI

Dr. M. Navaid Iqbal
Fellow
Cardiology

Dr. Kunwar M. Aqeel
Fellow
Cardiac Surgery

Dr. Ghulam Hussain Soomro
Senior Medical Officer
Cardiology

Dr. Faisal Javed
Medical Officer
Cardiac Surgery

Dr. Lubna Baqai
Medical Officer
Cardiology

Dr. Mubashir Laiq
Medical Officer
Cardiology

Dr. Saba Siddiqui
Medical Officer
Cardiology

Dr. Adeel ur Rehman
Medical Officer
Cardiology

Dr. Hina Shamim
Medical Officer
Cardiology

Dr. Sanam Khan
Medical Officer
Cardiology

Dr. Najam us Saquib
Medical Officer
Cardiology

Dr. Iffat Iqbal
Medical Officer
Cardiology

Dr. Faisal Junejo
Medical Officer
Anesthesia Department

Khayam Ahmed
Officer
Finance & Accounts

Ms. Anisha Mansoor Ali
Patient Relation Coordinator
PR Department

Ms. Nasreen Sultana
Pharmacist
Pharmacy Department

Syed Sajid Hussain Kazmi
Supervisor
Security Department

Syed Sajid Hussain Kazmi
Supervisor
Security Department

Wedlocks

Dr. Nousheen Riaz
Chief Medical Officer
Cardiology

THI Annual PICNIC

The Management of Tabba Heart Institute has always been concerned about the wellbeing of its employees. Hence it organizes various recreational and fun-filled activities for the staff & their family members to maintain a conducive and cordial working environment, that assures uphold of staff motivation.

Keeping up the good trend going, this year, the annual picnic for THI staff and family members was arranged at Picnic World Farm House, Karachi in the month of May 2011, in two groups.

The venue was undoubtedly a wonderful place. Goodie Bags filled with sweets, balloons and stationary items were given to all the kids present on the occasion; other activities and games like singing & fruit eating competition, musical chairs, potato peeling, supplemented with gifts/prizes, added fun to the occasion. Face Painting with colorful exotic patterns and designs was the most sought after activity of the day.

The event ended with blissful memories and appreciation for the Organizing Team.



Non Invasive Cardiac Test Modalities

by Dr. Nousheen Riaz

Non-Invasive Cardiology performs non-intervention testing for patients, utilizing the latest technology to diagnose cardiac disease. Tabba Heart Institute's Non-Invasive Cardiology Department is a state of the art facility that provides high quality authentic test results, as well as excellent patient care.

I- ECG (Electrocardiogram):

Electrocardiogram records electrical activity of heart that gives valuable information about heart rate, Angina, heart attack, heart size, and various other cardiac abnormalities. It is a simple and economical diagnostic tool which is used as initial screening test for Coronary Artery disease. However about 60% of patients with chest pain have normal ECG, hence it does not rule out Ischemic Heart Disease.

II- ETT (Exercise Tolerance Test):

In ETT, a patient undergoes a graduated treadmill exercise test, with continuous 12- leads ECG & Blood Pressure Monitoring; it provides useful information about the patient with normal baseline ECG who are at high risk of Coronary Artery Disease.

Instructions about test:

- Requires 4-6 hours fasting, for diabetic patient 4 hours only
- Male patient should shave their chest
- After consulting your doctor stop B-Blockers & Ca-Channel Blockers medicine at least 24 to 48 hours prior to test.

At THI, the test is performed under supervision of Cardiology Fellow.

III- Echocardiography (Echo):

It is the non-invasive method for analyzing the anatomic structure & function of the heart.

This allows assessment of cardiac valve areas and function, any abnormal communications between the left and right side of the heart, any leaking of blood through the valves (valvular regurgitation), and calculation of the cardiac output as well as the ejection fraction. Other parameters measured include cardiac dimensions (luminal diameters and septal thicknesses).

THI has state of the art latest Echo equipment. Initially, Echo is performed and recorded by technologist under the supervision of a senior Cardiologist. Later the test is reviewed by Cardiologist who prepares the final report.

IV-Stress Echo:

It is an economical test with good specificity for identifying the areas of heart muscles where there is decreased blood supply. It is done during exercise or just after exercise, or after pharmacological stress by administration of drugs. e.g: dobutamine.

Transesophageal Echo facility is also available.

V- MPI or MPS (Myocardial Perfusion Imaging or Scan):

Myocardial perfusion scan is a nuclear medicine procedure that illustrates the function of the heart muscle (myocardium).

It evaluates many heart conditions from coronary artery disease (CAD) to hypertrophic cardiomyopathy and myocardial wall motion abnormalities. The function of the myocardium is also evaluated by calculating the left ventricular ejection fraction (LVEF) of the heart. This scan is done in conjunction with a cardiac stress test. This offers a method of visualizing blood flow to the heart by injection of radioactive cardiac specific tracer. Two agents are widely used for MPI (1) Thallium 201 & (2) Technetium 99. Images are obtained by a gamma camera. It is the most useful test in patient who cannot perform exercise, have a pacemaker, have base line ECG/Echo abnormalities, or have intermediate exercises stress test results.

Instructions about test:

- It requires 5-8 hours fasting, for diabetic patients just 4 hours
- Male patients should shave their chest
- After consulting your doctor stop ca-channel Blockers & B-Blockers
- Asthmatic patient can take their inhalers but Theophylline or Amino Phylline containing Tab should not be taken for 48 hours. (for Dipyridamole, persantine /Adenosine)
- Stop taking tea, coffee or soft drinks like cola at least 20 hours prior to test.
- Test may take 6-8 hours to complete
- Pregnant or lactating mothers should inform Dr/Staff.

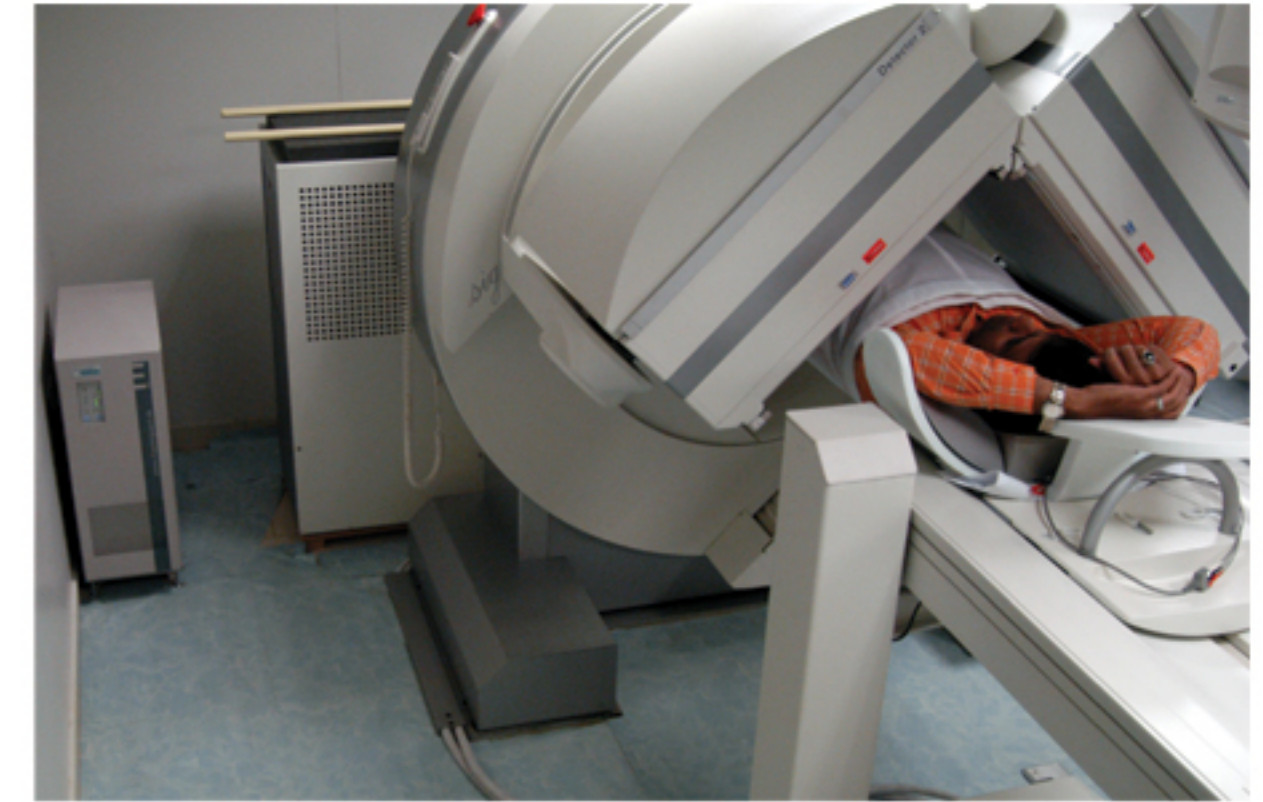
VI- Holter Monitoring:

Holter monitor (ambulatory electrocardiography device) is a portable device for continuously monitoring various electrical activities of the heart for 24-48 hours. Its extended recording period is sometimes useful for observing occasional or recurrent cardiac arrhythmias. When used, much like standard electrocardiography the Holter monitor records electrical signals from the heart via a series of electrodes attached to the chest.

VII- Tilt-table testing:

A Tilt table test, occasionally called Upright Tilt Testing. It is a medical procedure often used to diagnose dysautonomia (loss of consciousness due to cardiac cause) or syncope. Patients with symptoms of dizziness or lightheadedness, with or without a loss of consciousness (fainting), suspected to be associated with a drop in blood pressure or positional tachycardia are good candidates for this test.

While you lie flat on a table, your blood pressure, pulse and ECG are monitored. The table is then tilted to an angle of 60 to 75 degrees while monitoring. If nothing happens, a spray of a substance called GTN is given under tongue as a stimulus and you will be monitored for another 10-15 minutes. The table will then be returned to the flat position and the leads disconnected. The whole test takes around 45 minutes. If your blood pressure falls at the same time as you suffer your usual symptoms, this means that you have Vasovagal Syndrome or a related condition.



Our Strength:

- Latest state of the art machinery
- Tests are done under strict supervision of senior doctors according to international standards and protocols.
- Usually all these tests are safe and there is a very little chance of complication may be one in a thousand cases. In case of any emergency, there is a back up team available.

Dietary Supplements: Some common myths

Why take dietary supplements?

by Mehreen Amer

Some people take them for legitimate health benefits but others take them for reasons that may or may not be appropriate. For some people they may want to look for help with, say, aging skin or to prevent arthritis or depression and some might want to build muscles. So, when you are thinking about taking a supplement, you have to consider why you are taking it and whether it is legitimate, whether the supplement can actually provide what you are looking for, or not.

Many other reasons that people take dietary supplements are not valid or not proven by scientific evidence. It has never been scientifically proven that supplements can cure a disease. Another very common belief is that supplements give energy, but vitamins and minerals do not provide energy. Energy just comes from the fat, protein or carbohydrates in foods. Some of the vitamins help cells to convert the food into energy but vitamins themselves do not provide energy. Some people think if it is

take supplements it will either boost their athletic performance or they could build muscles; this however is not the case. Athletes and people who are physically active need just about the same amount of nutrients as other people. The one thing that they do need is increased calories or energy from food, and when they consume the extra food to meet their calorie needs, they are getting the small amount of extra vitamins and minerals they require. It is not the protein that will build the muscle but physical activity.

Who needs to take dietary supplements?

In some rare cases where meal intake is poor it is advisable to add food supplement to one's diet; these conditions include surgery, burns and trauma etc. Nutritional Supplements help to overcome nutritional deficiencies. Since most of the dietary plans in the above mentioned conditions do not provide all the nutrition, supplements can fulfill up the deficiencies. It should contain vitamins, minerals, omega 3, Cod Liver oil and other nutrients that the body requires. It should boost immune system, as a strong immune system makes the body more resistant against disease. Nutritional supplements can help compliment a diet that could be missing some necessary nutrients but they too are beneficial as long as you combine them with healthy and balanced food intake, so that none of the nutrients are missed.

One thing people generally believe is that taking a supplement will make up for a poor diet. That is not true. You cannot get all the nutrients provided in food in a supplement. They are just not available. So the best thing to do is to improve your eating habits, eat a wide variety of food.

herbal, it is natural that there is no problem with taking something that is plant based. That is not true either. There are various drugs come from plants and these have active chemical components in them that can interact with medicines and hence cannot be termed harmless. We have to take cautions when using them.

People take vitamins to relieve the effects of stress. Stress does not cause the body to require extra nutrients. Any vitamin that claims that it will protect the body from the physical effects of stress is misleading. Many people think that when they



Hypertension

Source: <http://www.nlm.nih.gov/medlineplus/highbloodpressure.html>

ترجمہ: سعدیہ عباس

بلند فشارخون

تعارف

ہائپرٹینشن یا بلند فشارخون کا شکار عمومی طور پر چار میں سے ایک فرد ہوتا ہے۔ اسے خاموش قاتل بھی کہا جاتا ہے کیونکہ اس کی بظاہر کوئی علامت نہیں ہے اور بروقت تشخیص اور علاج نہ ہونے پر یہ بہت سی بیماریوں کا باعث بن سکتا ہے۔ اس مضمون میں ہم آپ کو بلند فشارخون اور اس سے بچاؤ کے متعلق معلومات فراہم کریں گے۔

فشارخون یا خون کا دباؤ:

جسم کے خلیات (cells) کو خوراک اور (oxygen) کی ضرورت ہوتی ہے اور یہ (oxygen) اور غذا انسانی جسم میں موجود خون کے ذریعے جسم کے مختلف حصوں کو پہنچتی ہے۔ اس نظام میں اہم کردار دل کا ہے جو (oxygenated blood) رگوں کے ذریعے جسم کے مختلف حصوں کو پہنچاتا ہے۔

خون کے دباؤ کی مثال برے پائپ میں بہتے ہوئے پانی کے دباؤ جیسی ہے۔ جس طرح پانی کا بہاؤ پائپ کے کناروں پر دباؤ ڈالتا ہے اسی طرح خون کے بہاؤ کی وجہ سے رگوں کی دیواروں پر دباؤ پڑتا ہے۔ خون کے دباؤ کو دو ہندسوں کے ذریعے جاننا جاتا ہے۔ اوپر والے ہندسے کو systolic کہا جاتا ہے۔ یہ وہ ٹپکائی ہے جو اس وقت لی جاتی ہے جب دل سے خون کی باہر کی طرف نکلتا ہے۔ عام طور پر صحت مند لوگوں میں یہ 120 یا اس سے کم ہوتی ہے۔ دوسری ٹپکائی جو کہ dystolic کہلاتی ہے، اس وقت لی جاتی ہے جب دل سکون کی حالت میں ہوتا ہے اور عمومی طور پر اس کو 80 یا اس سے کم ہونا چاہئے۔ مثال کے طور پر اگر کسی مریض کا بلڈ پریشر 125/70 ہے تو اس کا مطلب ہے کہ اس کا بلڈ پریشر 125 Systolic ہے۔

بلند فشارخون:

خون کا دباؤ بروقت بدلنا ہوتا ہے۔ عام طور پر اس میں مختلف اوقات میں یا اس سے 20 منٹ کے وقفے سے 10-20 کا فرق آسکتا ہے۔ ورزش یا چلنا پانی دباؤ سے فشارخون بڑھ جاتا ہے۔ کیونکہ اس صورت میں جسم کو خون کی زیادہ ضرورت ہوتی ہے اور اس ضرورت کو پورا کرنے کے لئے دل زیادہ مقدار میں خون مہیا کرتا ہے۔ یہی بات خون کے دباؤ میں اضافے کا باعث بنتی ہے۔ وقتی طور پر بڑھ جانے والے اس دباؤ کو جسم برداشت کر سکتا ہے اور اسی وجہ سے ڈاکٹر زخمی مانا اسے بلور مرض تشخیص نہیں کرتے۔ تاہم اگر دباؤ کا دباؤ مستقل طور پر 130 یا اس سے زیادہ اور نیچے کا دباؤ مستقل طور پر 90 یا اس سے زیادہ رہنے لگے تو اس صورت حال کو بلور بلند فشارخون تشخیص کیا جاتا ہے۔ ایسے افراد جن کا Systolic کا 130 یعنی اوپر کا بلڈ پریشر 130 سے 140 کے درمیان اور Dystolic یعنی نیچے کا بلڈ پریشر 80 سے 90 کے درمیان رہتا ہے، ان میں خون کا دباؤ بڑھ جانے کا امکان بہت زیادہ ہوتا ہے۔ نتیجتاً ایسے لوگوں میں امراض قلب کا خطرہ بھی موجود ہوتا ہے۔ لہذا ان افراد کے لئے فشارخون پر قابو پانا ناگزیر ہے۔

بلند فشارخون کی وجوہات کے بارے میں حتمی طور پر کچھ نہیں جاسکتا تاہم یہ کچھ عوامل سے وابستہ ہے۔ وہ تمام افراد جن کا وزن بڑھا ہوا ہے، یا جو تباہ کن نوشی یا شراب نوشی کی عادت میں مبتلا ہوں، مستقل

ڈیٹی دباؤ کا شکار رہنے والے لوگ وہ جن کا روزمرہ کا کام بہت کم جسمانی مشقت کا ہے، اور وہ جو بہت زیادہ چٹ پٹے یا پازاز کے کھانوں کے عادی ہوں ان تمام افراد کے اس مرض میں مبتلا ہونے کا امکان بہت زیادہ ہے۔ علاوہ ازیں خطرے کی زد میں وہ خواتین جن کی عمر 35 سال سے زیادہ، وہ مرد جن کی عمر 35 سال سے زیادہ، وہ لوگ جن کے خاندان میں دیگر افراد بلند فشارخون میں مبتلا پائے جاتے ہیں، یا جو پہلے سے قاح، گردے کی بیماری، دل کے عارضے، ذیابیطس یا بڑے ہوئے کولیسٹرول جیسے امراض میں مبتلا ہیں، شامل ہیں۔

اگرچہ مندرجہ بالا افراد کے بلند فشارخون میں مبتلا ہونے کا امکان زیادہ ہے تاہم کسی بھی عمر اور ہنس منظر کے ساتھ بلند فشارخون کا شکار ہونا کوئی آہستہ بات نہیں۔

پہچیدگیاں:

وقت کے ساتھ ساتھ بلند فشارخون جسم میں پھیلی ہوئی خون کی شریانوں کو نقصان پہنچا سکتا ہے۔ اس کے باعث شریانیں پھیل کر کمزور پڑ جاتی ہیں۔ اگر یہ غیر معمولی طور پر چوڑی ہو جائے تو یہ Aneurysm کہلاتی ہیں۔ Aneurysm سے خون کا جاری ہونا مخصوص اس وقت جب وہ دماغ یا پیٹ کے کسی حصے میں ہوں، جان لیوا ثابت ہوتا ہے۔

وقت کے ساتھ ساتھ کچھ شریانیں کولیسٹرول اور چکنائی وغیرہ جمع ہونے کے باعث تنگ ہو جاتی ہیں۔ بلند فشارخون کے باعث دل کی رگوں کے پٹے سخت ہو جانے سے بھی شریانیں تنگ ہو جاتی ہیں۔ اس سے خون کے بہاؤ میں رکاوٹ پیدا ہوتی ہے جو بسا اوقات خطرناک صورتحال اختیار کر لیتی ہے کیونکہ خون مہیا نہ ہونے کی صورت میں جسمانی اعضاء کو شدید نقصان پہنچتا ہے۔

دماغ کی رگوں میں بہنے والے خون میں رکاوٹ stroke کا باعث بنتی ہے جس سے قاح، قوت گویائی سے محرومی اور موت کا خطرہ بھی لاحق ہو سکتا ہے۔ گردوں کی شریانوں میں تنگی اور خون کے بہاؤ میں رکاوٹ سے گردوں کا عمل متاثر ہوتا ہے۔ اس صورت میں (Dialysis) ڈائلیسس یعنی مین کے ذریعے ہفتے میں 3-5 مرتبہ گھنٹوں کے لئے خون کی صفائی نہ کروائی جائے تو مریض کی موت چلتی ہے۔

آنکھوں کو خون مہیا کرنے والی شریانوں میں رکاوٹ سے بصارت کے متاثر ہونے کے علاوہ بینائی زائل ہونے کا امکان بھی پیدا ہوتا ہے۔ یہی رکاوٹ اگر دل کی شریانوں میں پائی جائے تو اس سے متاثرہ حصے کو خون نہ پہنچنے کے باعث دل کمزور پڑ جاتا ہے اور نتیجہ دل کے دورہ یا موت کی صورت میں نکلتا ہے۔ دل کے نقصان کی ایک مزید صورت یہ بھی ہے کہ معمول سے زیادہ قوت صرف کرتے ہوئے خون کو پسپا کرنے کی وجہ سے دل پر تنگی طاری ہو جاتی ہے جس کی وجہ سے مریض کو سانس لینے میں دشواری محسوس ہوتی ہے اور دل کے دورے کا خطرہ لاحق ہو جاتا ہے۔ اگر مریض پہلے سے ذیابیطس، موٹاپا، کولیسٹرول، سڑوک، ہارٹ ایک وغیرہ کا شکار ہو تو یہ تمام پہچیدگیاں اس صورت میں شدت اختیار کر لیتی ہیں۔

بلند فشارخون کی تشخیص:

بلند فشارخون کی ادویات عموماً طویل مدت اور بعض اوقات عمر بھر کے لئے لی جاتی ہیں۔ ہا قاعدگی کے ساتھ معائنہ کر داتے رہنے سے ان کے اثرات اور افادیت کا پتہ چلتا ہے۔