

PHARMA HEALTH CLUB

SAFE USE OF MEDICINES FOR BETTER HEALTH

1ST OCTOBER, 2015

Page 01

World Heart Day

Page 02

What is Cardiovascular Disease (CVD)?

Page 03

How to protect your heart?

Page 04

References



29TH SEPTEMBER

2015 Theme: Heart Choices NOT Hard Choices

'World Heart Day' was founded in the year 2000 by World Heart Federation to inform people around the globe that heart disease and stroke are the world's leading causes of death, claiming 17.3 million lives each year. It is an annual event held on 29th September. Each year's celebrations have a different theme, reflecting key issues and topics relating to heart health. This year, the theme is aimed at creating heart-healthy environments... the places in which we live, work and play should not increase our risk of cardiovascular disease (CVD).[1]

What is Cardiovascular Disease (CVD)?

Any disorder related to heart & blood vessels is named as Cardiovascular diseases. CVD includes conditions affecting the structures or function of the heart viz., coronary artery disease (mainly atherosclerosis), heart attack, ischaemic stroke, heart failure, arrhythmia, heart valve problems, etc.

- **1. Atherosclerosis:** It's a condition that develops when a substance called Plaque builds up in the walls of the arteries. This buildup narrows the arteries, making it harder for blood to flow through. If a blood clot forms, it can stop the blood flow. This can cause a heart attack or stroke.[5]
- **Management:** HMG-CoA reductase inhibitors, fibrates, catheterisation, balloon angioplasty, stent, gene therapy (gene manipulation or gene blockade).

HEART - HEALTHY ENVIRONMENTS

- ❖ **2. Heart Attack:** A heart attack occurs when the blood flow to a part of the heart is blocked by a blood clot. If this clot cuts off the blood flow completely, the part of the heart muscle supplied by that artery begins to die. Most people survive their first heart attack and return to their normal lives to enjoy many more years of productive activity. [5]

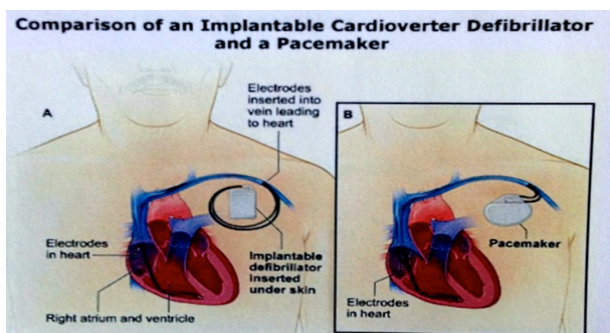
Classic Heart Attack Symptoms



- ❖ **Management:** Includes medicines like Clotbusters viz., anticoagulants (Rivaroxaban, Warfarin, Heparin, Apixaban), antiplatelets (Aspirin, Ticlopidine, Clopidogrel) as well as ACE inhibitors, β -blockers, Calcium channel blockers, diuretics, cholesterol lowering agents, etc. Surgical aspects like Coronary angioplasty and Coronary artery By-Pass Graft Surgery can also be used. [8]

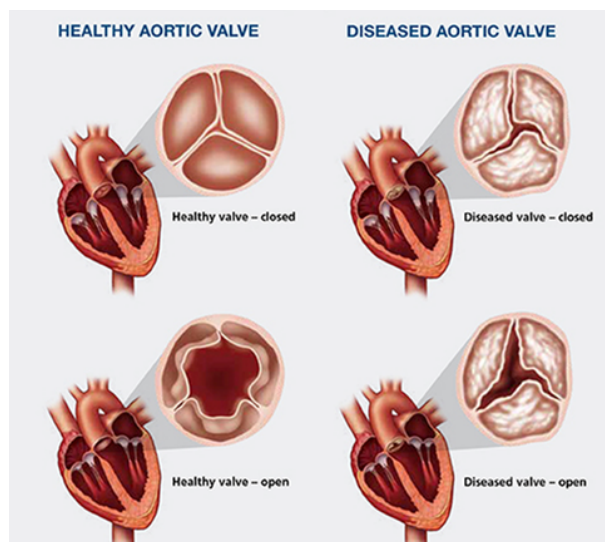
- ❖ **3. Arrhythmia:** This is an abnormal rhythm of the heart. There are various types of arrhythmias. The heart can beat too slow, too fast or irregularly. Bradycardia is when the heart rate is less than 60 beats per minute. Tachycardia is when the heart rate is more than 100 beats per minute. [5] An arrhythmia can simply be explained by "Irregular rhythm of Heart".

- ❖ **Management:** Can be done appropriate medications like Quinidine, Amiodarone, Disopyramide, Lidocaine, Propranolol, Sotalol, Flecainide, etc. [9] Apart from these medications, other tools like Pacemaker & Defibrillator can also be used in management of Arrhythmias.



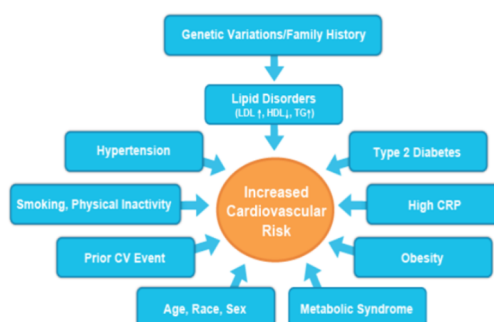
- ❖ **4. Ischemic stroke:** It happens when a blood vessel that feeds the brain gets blocked, usually from a blood clot. When the blood supply to a part of the brain is shut off, brain cells will die. The result will be the inability to carry out some of the functions like walking or talking. Medicines like clotbusters & Carotid endarterectomy can be used in its management. [5]

- ❖ **5. Heart valve problems:** When heart valves don't open enough to allow the blood to flow through as it should, it's called stenosis. When the heart valves don't close properly and allow blood to leak through, it's called regurgitation. When the valve leaflets bulge or prolapse back into the upper chamber, it's a condition called mitral valve prolapse. When this happens, they may not close properly. This allows blood to flow backward through them.



- ❖ **Management:** Includes several class of drugs like ACE inhibitors, Anti-arrhythmics, Anticoagulants, Beta-blockers, Diuretics, Vasodilators, etc. Heart valve surgery can also be useful for same. [12]

- ❖ **Major Risk factors of Cardiovascular diseases (CVD)[3, 13]**



● MODIFIABLE RISK FACTORS

- Physical inactivity
- Unhealthy diet
- Tobacco use
- Cholesterol
- Raised blood pressure & hypertension
- Obesity and overweight

● NON-MODIFIABLE RISK FACTORS

- Family history
- Diabetes

● Other common non-modifiable risk factors include:

- **Age:** Simply getting old is a risk factor for cardiovascular disease; risk of stroke doubles every decade after age 55.
- **Gender:** Your gender is significant: as a man you are at greater risk of heart disease than a pre-menopausal woman. But once past the menopause, a woman's risk is similar to a man's. Risk of stroke is similar for men and women.
- **Ethnicity:** Your ethnic origin plays a role. People with African or Asian ancestry are at higher risks of developing cardiovascular disease than other racial groups.
- **Socioeconomic status:** Being poor, no matter where in the globe, increases your risk of heart disease and stroke. A chronically stressful life, social isolation, anxiety and depression also increase the risk.

● How to protect your heart?

- **Get Active:** 30 minutes of activity a day can help prevent heart attack and stroke. Try to make exercise a regular part of your life: use the stairs instead of the lift, get off the bus a few stops earlier and walk the rest of the way. Being active is also a great way to relieve stress and control your weight, which are both risk factors for cardiovascular disease.[3]
- **Avoid tobacco:** If you stop smoking, your risk of coronary heart disease will be halved within a year and will return to a normal level over time. Avoid smoke-filled environments: exposure to second-hand smoke significantly increases the risk of heart attack.[3]
- **Eat Healthy:** Eat plenty of fresh fruit and vegetables, a variety of whole grain products,

fish, peas, beans, lentils and foods low in saturated fats. Avoid processed foods, which often contain high levels of salt. Avoid alcohol; drink lots of water! [3]

- **Maintain Body weight:** Keeping a healthy weight and limiting your salt intake will help to control your blood pressure and lower your risk of heart disease and stroke. A good way to keep track of a healthy weight is to use BMI (Body-Mass Index) which is a measure of how much body fat is on a person based on their height or weight. To calculate your BMI, you divide your weight (in kilograms) by your height squared (in meters). A healthy adult should keep his or her BMI between 18.5 and 24.9 Kg/m². [3]
- **Keep watch:** Crucial numbers affect your heart! Keep blood pressure, cholesterol and glucose levels checked regularly. High blood pressure is the number one risk factor for stroke and a major factor for approximately half of all heart disease and stroke. High blood cholesterol and glucose levels can also place you at greater risk. [3]
- **Know the warning signs:** Sooner assistance is sought, the greater the chances of a full recovery. Learn about CPR (Cariac Pulmonary Resuscitation) and get certified from your local organization so that you are able to help out in case someone goes into sudden cardiac arrest. [3]
- **Final Word:** Of the 30 million CVD patients in India, 14 million are urban and 16 million are rural. 0.2 million heart surgeries are performed in India every year. [14] Though we will be covering allopathic and herbal medicines in detail for individual CVD later on, prevention is THE best medication!



References:

- ❶ 1. World Heart Federation. About World Heart Day. Available on: <http://www.world-heart-federation.org/what-we-do/awareness/world-heart-day/about-world-heart-day>(Accessed on: 20/09/2015)
- ❷ 2. Image of World Heart Day - Theme. Available on: <http://i.ytimg.com/vi/IUDIs0uulOo/0.jpg>(Accessed on: 20/09/2015)
- ❸ 3. World Heart Day Org., What is CVD? About cardiovascular disease. Available on: <http://worldheartday.org/what-is-cvd/>(Accessed on: 20/09/2015)
- ❹ 4. Image for overall information about Cardiovascular Diseases (CVD). Available on: <http://worldheartday.org/wp-content/uploads/2015/07/cvd-infographic.jpg>(Accessed on: 20/09/2015)
- ❺ 5. American Heart Association. What is Cardiovascular Diseases? Available on: http://www.heart.org/HEARTORG/Caregiver/Resources/WhatIsCardiovascularDisease/What-is-Cardiovascular-Disease_UCM_301852_Article.jsp# (Accessed on: 20/09/2015)
- ❻ 6. Image of Progression of Atherosclerosis. Available on: http://larryalmonite.com/wp-content/gallery/graphic_design/progression_0.jpg (Accessed on: 20/09/2015)
- ❼ 7. Symptoms of Heart attack. Available on: <http://2.bp.blogspot.com/-l1pOREbpog/UYaPSML7AZI/AAAAAAAAAT8/j693QVzu0kY/s1600/heart+symptoms.jpg>(Accessed on: 20/09/2015)
- ❽ 8. American Heart Association. Cardiac medicines. Available on: http://www.heart.org/HEARTORG/Conditions/HeartAttack/PreventionTreatmentofHeartAttack/Cardiac-Medications_UCM_303937_Article.jsp(Accessed on: 20/09/2015)
- ❾ 9. American Heart Association. Medications for Arrhythmia. Available on: http://www.heart.org/HEARTORG/Conditions/Arrhythmia/PreventionTreatmentofArrhythmia/Medications-for-Arrhythmia_UCM_301990_Article.jsp(Accessed on: 20/09/2015)
- ❿ 10. Image of Pacemaker vs Defibrillator. Available on: <https://www.eparisextra.com/images/uploads/2013/04/photo.jpg>(Accessed on: 20/09/2015)
- ⓫ 11. Image of various heart valve diseases. Available on: <http://www.lifebridgehealth.org/Uploads/Public/Images/Sinai/Cardiac%20Valve%20Center/HeartValves.jpg>(Accessed on: 20/09/2015)
- ⓬ 12. American Heart Association. Medications for Heart Valve diseases. Available on: http://www.heart.org/HEARTORG/Conditions/More/HeartValveProblemsandDisease/Medications-for-Heart-Valve-Symptoms_UCM_450684_Article.jsp(Accessed on: 20/09/2015)
- ⓭ 13. Image of common risk factors for Cardiovascular diseases. Available on: <http://www.cholesterolneversleeps-international.com/~media/amgen/full/www-cholesterolneversleeps-com/sections/a-state-of-concern/factors-that-contribute-to-increased-cv-risk.ashx?la=en&hash=909F25D893D1D86916EE3D70FE0A95C53AC5A080>(Accessed on: 20/09/2015).
- ⓮ 14. <http://food.ndtv.com/health/world-heart-day-2015-heart-disease-in-india-is-a-growing-concern-ansari-1224160>

**A GOOD HEAD AND
A GOOD HEART
ARE ALWAYS A FORMIDABLE
COMBINATION.**