POISE

MAGAZINE

I N D E X

A R T I C L E S

DR. ANJU SONI
President Indian Menopause Society
2024 - 2025

President's Desk

Message

It gives me immense pleasure to present this issue of POISE of the Indian Menopause Society at the North Zone IMISCON. POISE is an effort of IMS to spread knowledge about issues related to women's health in midlife and beyond and create a positive impact on their Holistic Health.

The theme of Indian Menopause Society 2024-25 is "Wellness of Women 360 degrees- Rejuvenate and Reverse " Cardiovascular disease is the single largest cause of death worldwide and 75%of them are preventable. This issue will provide insight into the prevention and management of CVD in a simple and easily understandable form and thus help society especially women to take responsibility of their health.

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I am very pleased that we are focusing on cardiovascular disease in women, an incredibly important area that will significantly impact the lives of women and our patients. You might wonder why the Indian Menopause Society is discussing reproductive milestones across the lifespan. Over the last five years, compelling evidence has shown that the cardiovascular health of women in midlife is deeply influenced by various reproductive events throughout their lives. Therefore, understanding and addressing cardiovascular disease in women requires a comprehensive approach that includes their reproductive history. This connection underscores the critical need to prioritize cardiovascular health as a key component of women's health, ultimately aiming to improve outcomes and quality of life for women everywhere. By linking cardiovascular health to reproductive milestones, we gain a more holistic view of women's health, leading to more effective preventive and therapeutic strategies, and ultimately, better outcomes and enhanced quality of life for women, especially as they transition through menopause.

I appreciate the efforts of Dr Shubha Sethia Chairperson of Public Awareness Committee IMS and editor of this issue for having conceived the idea of dedicating this issue of IMS to "HEART HEALTH". I congratulate Dr Divya Kumar co editor of this issue for making all efforts to Compile and present this magazine so beautifully I commemorate. Faridabad Menopause Society President Dr Indu Taneja and Secretary Dr Sonal Gupta for their continuous support in getting the magazine published in time

DR. BIPASA SEN

Secretary, General Indian Menopause Society
2024 - 2025

Secretary General's Desk

Message

It is my proud privilege to announce the publication of the first issue of Poise Magazine by team 2024-25 at the first Zonal Conference of the year at Faridabad on 13th & 14th July, 2024.

The theme of this issue being "Save Your Heart", it rightly stresses on cardiovascular risk of elderly women – which is the need of the hour. We all know that the major cause of mortality in menopausal women is cardiovascular accident – much more than the combined mortality from all malignancies.

In 2005, 1 in 6 women death was from CVD and 1 in 30 women death was from malignancies. In 2030, the projected death rate from CVD will be 42% of total death of elderly women. Here lies the importance of this issue of Poise.

Hope the right ups of eminent authors in this issue enlightens all and help women lead a Heart Healthy Life.

DR. SHUBHA SETHIA
Club 35+ Public Awareness Committee
IMS Publication - POISE
2024 & 2025

Editor's Desk

Message

"I want to talk to you about one of the biggest myths

in medicine and that is the idea that all we need

are novel breakthroughs and then all our problems will be solved"

QUYEN NGUYEN

Over the past 50 years there has been a remarkable success in cardiovascular medicine Still the burden of CVD remains high. It is the number one cause of death both in developed and developing world. 75% of CVD is attributable to modifiable factors and the potential for prevention is immense. There is still complacency among lay men and CVD is considered a normal consequence of growing older. This results in poor health-seeking behavior and even though silent conditions like hypertension, dyslipidemia, and diabetes are diagnosed, treatment is not prioritized. BY 2050 WHO envisions a 50% reduction in cardiovascular mortality. To achieve this mission, we must act now.

Awareness and education of the masses to take charge of their health is the first step This Issue of POISE magazine **"Save the Heart"** is an effort by the Indian Menopause Society to foster knowledge about risk screening, prevention, diagnosis, and adequate management of cardiovascular diseases and their risk factors

I am highly grateful to Dr Anju Soni President, IMS, Dr Sudhaa Sharma Vice President, IMS and Dr Bipasa Sen Secretary General, IMS, for having entrusted me with the responsibility to take out this edition of Poise Magazine in the North Zone Conference of IMS on the 13th,14th July 2024.

This edition is in association with Faridabad Menopause Society and I thank Dr Indu Taneja President, Faridabad Menopause Society, and Dr Sonal Gupta Secretary, Faridabad Menopause Society for their continuous support.

I sincerely thank my co-editor Dr Divya Kumar , who has been working tirelessly to give a shape to this magazine, Above all my sincere thanks to all authors of the chapters for their contribution.

DR. DIVYA KUMAR

Senior consultant obs and gyane
Director Accord Offspring fertility
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Co-Editor's Desk

Message

Global increase in life expectancy brings new challenges. There will be more than a billion menopausal women by 2025. Unfortunately, because of conflicting messages from health care professionals, health researchers, policymakers, and society at large, the midlife and menopausal transition largely remains at best a private concern and at worst a stigmatized condition and taboo topic.

However, as greater numbers of women enter the workforce, there is increasing attention directed toward this normal phase of life.

The menopausal transition is a complex time period in the female life cycle, with differing ages and causes of onset, constellations and duration of symptoms. It's impact on cardiovascular health, bone health, sexual health etc also has inter-individual variation.

And this all is the compelling thought behind "POISE ". The theme for this year 2024 is cardiovascular disease.

As protective effect of oestrogen recedes heart becomes more vulnerable, hence heart health and menopause has been stressed upon for decades. This edition of poise tries to address all aspects of CVD from lifestyle changes to environmental factors to detection and finally treatment, all heart to heart!!

Let me thank everyone from those who helped in conceptualising, to all the authors, to digital media team of Accord Superspecialist hospital Faridabad, for making this happen. Special gratitude to my mentor Dr Anita kant for holding my hand through thick and thin always. My heartfelt thanks to Dr Indu Taneja (President Faridabad menopause society) and Dr Sonal Gupta for their undaunting faith in me. For me the whole process from conceptualising, to collecting articles from all enthusiastic members of different societies, to putting them together, finalising them under guidance of our learned and scholarly editor Dr Shubha Sethia and then shaping into what you see today has been quite a journey. Started with a cliched mindset, but realised in this whole process how much we lack in awareness. We need to know about menopause not only as health care providers but as women, and individuals too.

This "POISE" is a toast to menopause!! Woman, after Years of reproductivity miles to go with your productivity !!

Don't be diffident ;
Of your Greys and sags !!
Those fine lines and occasional leaks ;
Cannot make you weak ;
Woman you are no more meek !!
Brow beaten is a matter of past ;
You are here to last !!
Through all phases ;
To everyone's Aghast!!

DR SANJNA MAHESH

MBBS, MS (Obs & Gynae), FMAS, CIMP
Director & Consultant Gynecologist
Chandra Hospital, Agra

WHAT IS CVD ?

Introduction

Cardiovascular disease is a group of disorders of the heart and blood vessels.

Cardiovascular disease includes:

Coronary heart disease - A disease of the blood vessels supplying the heart muscle also known as coronary artery disease or Atherosclerotic heart disease or Ischemic heart disease This the most common type of heart disease and cause of heart attack.

Cerebrovascular disease - A disease of the blood vessels supplying the brain. Peripheral Arterial disease- A disease of blood vessels supplying the arms and legs.

Rheumatic Heart Disease - damage to the heart muscle and heart valves from rheumatic fever.

Congenital Heart Disease - birth defects that affect the normal development and functioning of the heart caused by malformation of the heart structure from birth.

Deep Vein Thrombosis and Pulmonary Embolism - blood clots in leg veins which can dislodge

Factors contributing to the development of CVD

Genetic

- **Barker hypothesis** suggests that impaired foetal growth in womb may have made survivor more likely to develop heart disease later in life.
- **Gender:** Premenopausal women are at lower risk of cardiovascular disease compared to men of similar age due to estrogens.

- **Age:**

  * Postmenopausal women have a twofold higher risk of developing CVD then premenopausal women.

  * Women having premature menopause younger than 35 yrs. have 2-3 fold increase of MI.

  * Women with bilateral oophorectomy younger than 3 yrs. there is increased risk of MI by seven times.

  * Women tend to develop CVD about 10-20 yrs later then man and they are at 3 times higher risk of stroke.

  * After menopause risk of fatal MI secondary to atherosclerosis of coronary vessels doubles.

- **Lifestyle risk factors**

  These are unhealthy diet, physical inactivity, tobacco use and harmful use of alcohol.

- **Sociocultural and psychological risk factors**
  It includes poverty, stress and depression

- **High blood pressure**

- **High blood cholesterol**

- **Smoking**

- **Obesity**

- **Diabetes**

  Drug treatment of hypertension, diabetes and high blood lipids are necessary to reduce cardiovascular risk and prevent heart attacks and strokes among people with these conditions.

  A timely primary intervention program to prevent the life threatening sequel is needed.

DR INDU TANEJA

Director - Cloudnine Hospital, Faridabad

BURDEN OF CVD

Introduction

Heart disease is the most common cause of death of women. Prevlance of CHD is between 7-13% in urban and 2-7% in rural. At present there are over 30 million cases of CHD. 2/3 rd of women who die suddenly have no previous symptoms. CVD includes HTN, heart disease, stroke, peripheral arterial disease.

CVD is the number one cause of mortality of women. It accounts more than the malignancies (endometrial, breast, ovarian) combined together. One in five women die from heart disease whereas 1 in 30 die from breast cancer. Coronary diseases are unusual before menopause because of the protective effect of estrogen. Previously women used to develop disease 10 years later than men but nowadays younger population is presenting more attributing to lifestyle.

Risk of heart attack is directly related to age, as the age advances risks increase. Between 45-64 years, 1 in 9 develops symptoms. After 65 years, ratio increases to 1 in 3 women. In case of heart failure, the mean age is 39 +/- 16 years with the most common underlying cause Rheumatic heart disease followed by dilated cardiomyopathy. India has highest mortality upto 30% in heart failure patients.

The prevlance of CAD in women was 14.3% vs 9.8% in men as reported by a study of Krishnan MN etal in Kerala.

A women 's heart is smaller than men's heart because of smaller body surface area. The diameter of coronary arteries is also smaller, responsible for higher complication rates. Indian women undergoing angiography showed greater proportion having TVD (triple vascular disease) than double or single vessel disease. Shaw etal, identified coronary microvascular and endothelial dysfunctions in women with ischaemic heart disease. Hormonal alterations coupled with atherogenic risk factor result in increased prevlance of coronary microvascular dysfunction.

With age, estrogen production wanes, SBP tends to increase therefore HTN is 14% more prevalent. The severity of CHD rapidly increase 3 times greater in postmenopausal than in premenopausal.

DR MANU SINGLA

MD OBST. GYNAE

SYMPTOMS OF CVD

Cardiovascular diseases are single largest killer of post menopausal women followed by CANCER. About 4 lakh women die from cardiovascular diseases annually. This incidence is more in post menopausal women as compared to Men .This is due to lack of estrogen in this age group which causes atherosclerosis of blood vessels which when combined with high levels of bad cholesterol or LDL causes aggregation of platelets and macrophages at vascular intima layer causing heart disease. During reproductive period of life Estrogen has a cardio protective role in women. Symptoms of heart disease may vary widely from chest pain to palpitations. Sometimes there maybe no symptoms. Common symptoms include Chest pain, shortness of breath, Wheezing or cough, Fatigue, Fast or uneven heartbeat known as palpitations, Swelling in legs, ankles, feet due to poor blood supply in extremities.

There may be also some hidden symptoms of heart diseases which can be mistakenly ignored for example

Pain in one or both arms, nausea or vomitting, unusual fatigue, heartburn, light headedness or dizziness, sweating, neck, jaw, shoulder or upper back discomfort.

Facial signs and symptoms of underlying heart disease are

Thinning or greying of hair, wrinkles, xanthomas under skin heart diseases can be checked at home by regular blood pressure monitoring, taking staircase test, measuring heart rate these are very useful in high risk patients with symptoms like chest pain, shortness of breath or dizziness. protection of heart during menopause eating healthy diet which includes whole grains, fibre, variety of fruits and vegetables, consuming proteins which are low in saturated fats for example egg whites, soyabean and pulses, cheese and in non-vegeterians. sodium intake should be reduced in diet, one should be physically active doing yoga and weight bearing exercises, maintaining healthy weight with bmi below or equal to 25,regular monitoring for dyslipidemia, sugar, thyroid function test, blood pressure monitoring, quitting smoking.

Many studies have advocated the role of HRT in prevention of heart disease. However decision after calculating different risk factors and individualisation is important before prescribing HRT. Postmenopausal women should be educated about above signs and symptoms so that they are vigilant enough to consult a doctor in time

DR SONAL GUPTA

MBBS, MD, FICOG

Secretary - Faridabad Menopause Society

RISK FACTORS OF CVD

Several traditional risk factors for coronary artery disease - such as high cholesterol, high blood pressure and obesity - affect both women and men. But other factors may play a bigger role in the development of heart disease in women.

Heart disease risk factors for women include:

- **Diabetes -** Women with diabetes are more likely to develop heart disease than are men with diabetes. Also, because diabetes can change the way women feel pain, there's an increased risk of having a silent heart attack - without symptoms.
- **Emotional stress and depression -** Stress and depression affect women's hearts more than men's. Depression may make it difficult to maintain a healthy lifestyle and follow recommended treatment for other health conditions.
- **Smoking -** Smoking is a greater risk factor for heart disease in women than it is in men.
- **Inactivity -** A lack of physical activity is a major risk factor for heart disease.
- **Menopause -** Low levels of estrogen after menopause increase the risk of developing disease in smaller blood vessels.
- **Pregnancy complications -** High blood pressure or diabetes during pregnancy can increase the mother's long-term risk of high blood pressure and diabetes - These conditions also make women more likely to get heart disease.
- **Family history of early heart disease -** This appears to be a greater risk factor in women than in men.
- **Inflammatory diseases -** Rheumatoid arthritis, lupus and other inflammatory conditions may increase the risk of heart disease in both men and women.

Women of all ages should take heart disease seriously. Women under age 65 - especially those with a family history of heart disease - also need to pay close attention to heart disease risk factors.

DR. MANDEEP KAUR

MBBS DGO ,Diploma in ultrasound ,member of FOGSI ,NARCHI ,SFM ,AOGD, ISAR. Executive committee member Society of Fetal Medicine Ludhiana chapter

Executive committee member Ludhiana Obsterics and gynaec LOGS -second tenure .

DIAGNOSIS OF CVD

Cardiovascular disease is the leading cause of death in the world ,second is cancer .As we all know that women develop heart disease later than men. Low estrogen levels corelate with coronary artery disease in men .But the risk of CVD increases in women after menopause in most cases .

Women in India are prone to an earlier menopause and all its implications on their health at an earlier age than their counterparts in the developed world.

Menopause by itself does not cause heart disease, but it is associated with a significant increase of BP , obesity ,BMI and body fat distribution.

After menopause dyslipidaemia and cholesterol levels may rise because of ESTROGEN DEFICIENCY- increasing the risk of heart attack and stroke .postmenopausal women with normal lipid profile also had increased prevalence of CVD ,which shows non lipid Cardiovascular benefits of Estrogen.

Estrogen being cardioprotective ,it's deficiency can increase the prevalence of CVD in postmenopausal women .
Estrogen has a favourable effect on body fat distribution and improvement in insulin sensitivity .central obesity is now a well established risk factor in itself .

Extra gonadal production of Estrogen is crucial because it remains the only source of endogenous E2 in men and postmenopausal women .

What can I do to reduce my risk and improve symptoms

Small changes can make a big difference and the following tips can help it to feel more manageable-

- Maintaining a healthy weight
- Eating a healthy balanced diet
- Increasing your activity levels
- Reducing the amount of alcohol you drink
- Not smoking
- HRT - benefits/ risks to your heart

Are menopausal symptoms a sign of heart condition ?

- Feeling your heart racing or heart palpitations are common symptoms of menopause for many women .
- Aches and pains including in chest area .
- Finding it difficult to concentrate or feeling more forgetful ' brain fog '
- Weight gain

However these are likely to be caused by your changing hormonal levels .

For the diagnosis of Cardiovascular disease in menopause a thorough general examination is advised along with measurement of BMI ,, waist hip ratio WHR.

The blood tests which are helpful in diagnosing are fasting lipid profile ,plasma glucose, liver and kidney function tests , thyroid function tests. Serum LDL cholesterol > 130mg /dl is associated with increased risk of CVD .

ETT - exercise treadmill testing is most frequently used test for diagnosing CAD in women.

ETT is non invasive and simple as an initial test in symptomatic ,intermediate risk women with normal baseline ECG .

NAVIGATE MENOPAUSE WITH HEART HEALTH IN MIND - be heart smart .....
OGSI

DR USHA PRIYAMBADA

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CHEST PAIN IN MENOPAUSE

Menopause is a natural transition in the life of a female that is caused by the loss of ovarian follicular function and decline in circulating blood estrogen levels. It is an irreversible part of the overall aging process and may result in extremely unpleasant symptoms like hot flushes,fatigue,weight gain, anxiety, irritability, genitourinary symptoms like dyspareunia, vaginal dryness, urinary frequency, urinary incontinence . The decrease in estrogen and progesterone in addition to the metabolic changes associated with aging process puts the female in significant risk of developing cardiovascular diseases. So, chest pain during menopause can be a concerning symptom. It can arise from various causes, both cardiac and no cardiac. Here are some key considerations

Cardiac causes of Chest Pain:

- **Cardiac Syndrome X:** Chest pain in postmenopausal women could be due to myocardial ischemia, known as Cardiac Syndrome X, which is thought to be related to estrogen deficiency and microvascular dysfunction.
- **Coronary Heart Disease:** The risk of coronary heart disease increases after menopause due to changes in lipid profiles and the loss of estrogen's protective effects on the heart.

Non-Cardiac Chest Pain (NCCP)

It refers to chest pain that resembles angina but occurs in the absence of significant coronary artery disease on conventional diagnostic evaluation. Here are some key differential diagnoses to consider:

Gastrointestinal Causes:

- **Gastroesophageal Reflux Disease (GERD):** Often a primary cause of NCCP, presenting with burning chest pain that may worsen with meals or when lying down.
- **Esophageal Spasm:** Can cause intermittent, severe chest pain that can mimic cardiac pain.
- **Peptic Ulcer Disease:** While less common, ulcers can cause excessive gastric acid secretion and acid reflux can cause chest pain.

Musculoskeletal Causes:

- **Costochondritis:** Inflammation of the costal cartilage causing localized chest wall pain that is reproducible with palpation of chest wall.
- **Cervical Radiculopathy:** Nerve compression in the cervical spine can cause radiating pain that mimics chest pain.
- **Myofascial Pain:** Trigger points in the chest muscles can produce persistent chest pain.

Pulmonary Causes:

- **Pulmonary Embolism:** Although primarily a vascular issue, it can present with sharp, pleuritic chest pain, often associated with shortness of breath.
- **Pneumonia:** Can cause chest pain often associated with fever and dyspnea.
- **Pneumothorax:** The sudden onset of sharp, unilateral chest pain with dyspnea.

Psychiatric Causes:

- **Panic Disorder:** Chest pain associated with panic attacks, often accompanied by palpitations, sweating, and a sense of doom.
- **Anxiety and Depression:** These can also manifest with somatic symptoms including chest pain.

Other Causes:

Herpes Zoster: Can cause a painful rash in a dermatomal distribution, sometimes preceding the rash with pain that can be mistaken for cardiac in origin.

Clinical Approach when evaluating a patient with chest pain should include a thorough history, understanding the patient's overall health, menopausal symptoms, and any history of cardiac issues. Physical Examination should focus on cardiovascular and gastrointestinal systems, as well as musculoskeletal assessments.

Diagnostic tests might include:

- ECG, stress tests and echocardiography to rule out cardiac causes.
- Endoscopy for gastrointestinal causes.
- Chest X-ray and CT scan for pulmonary issues.
- MRI or nerve conduction studies for suspected musculoskeletal or nerve-related pain.

Management:

- Treatment of chest pain in menopausal women depends on the underlying cause:
- Cardiac Issues: Management might involve pharmacotherapy, lifestyle modifications, and in some cases, interventions like angioplasty.
- GERD: Dietary modifications, lifestyle changes, & medications such as proton pump inhibitors or H2 blockers.
- Musculoskeletal Pain: Physical therapy, pain management strategies, & possibly anti-inflammatory medications.
- Anxiety & Panic Disorders: Cognitive- behavioral therapy, SSRIs, or other appropriate psychiatric medications.

Lower estrogen levels after menopause are related to altered vascular function, enhanced inflammation, up regulation of RAAS and altered metabolism which increases the risk of fatal cardiovascular diseases in post menopausal women. So, chest pain as a symptom should never be overlooked. However, not all chest pain is angina. It's important for clinicians to consider both the physiological and psychological aspects of menopause when addressing chest pain in this population, ensuring a comprehensive approach to care.

DR. SHUBHA SETHIA

Club 35+ Public Awareness Committee
IMS Publication - POISE
2024 & 2025

HYPERTENSION: A SILENT ENEMY OF HEART

Hypertension is a silent disease, with no symptoms of its own. Yet it is the number one risk factor of death due to heart disease and stroke,16% of Coronary Artery Diseases, 21%of Peripheral Vascular Disease, and 29% of strokes are due to hypertension. 28% (1 in 4) of Indian adults are hypertensive, of these only one-third are diagnosed, only 45% of those diagnosed are treated, and of those treated only 50% are adequately controlled. Starting at B.P. of 115/75; the risk of cardiovascular death increases twofold at 135/85, fourfold at155/95, and eightfold at 175/105. Timely diagnosis and adequate treatment of hypertension can avert 50% of cardiovascular deaths. Adults above 18 should get their B.P. checked every 2 years and after 40 yearly check is recommended.

Diagnosis and classification of hypertension

	S.P	D.P.
Optimal	<120	<80
Normal	<130	<85
High Normal	130-139	85-89
Stage 1	140-159	90-99
Stage 2	160-179	100-109
Stage 3	>180	>110

Risk factors for hypertension include increasing age, family history, obesity, decreased physical activity, unhealthy diet, high salt intake, tobacco consumption, excessive alcohol, and excessive stress. Most of the risk factors are modifiable Weight reduction of 4.5kg in overweight persons decreases blood pressure. 30-45 minutes of brisk walking 3-4 times a week reduces systolic pressure by 7-8mm. The average Indian consumes 13-14gnm salt per day, WHO recommends < 5gm/day. No to smoking and reduced caffeine and alcohol intake

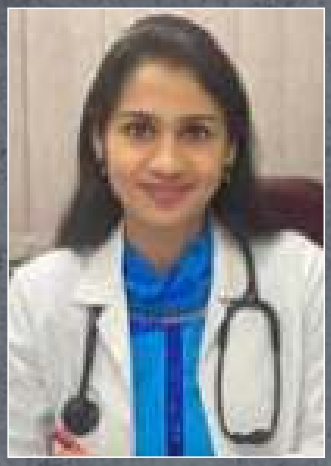
Management Guidelines

Management depends on the presence of other associated high risk factors like diabetes, obesity, high risk of CVD, previous CVD, family history of CVD, renal disease, smoking, or excess alcohol Treatment: Treatment is started with a low dose of a single drug and then gradually stepped up to two or three drugs regimen. Target BP: Below 60yrs of age should be below 140/90, and if tolerated below 130/80. After 80 a target of 150/90 is given to avoid postural hypertension, People at high risk should have a target bp of 130/80.

KEEP YOUR HEART HEALTHY
BY KEEPING YOUR BLOOD PRESSURE
UNDER CONTROL

Your aim should be to reach your target B.P

Normal No risk factors	1-2 year B.P. monitoring
Normal/High Normal No risk factors	6mths-1year B.P monitoring
High normal/Stage 1 No risk factors	3 months lifestyle drug therapy if no relief
High Normal/Stage1 No risk factors	Drug therapy
Stage 2 with or without risk actor	Drug therapy
Stage 3 Combination	Drug therapy



DR. RUPALI KHURANA

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DIABETES & YOUR HEART HEALTH

For Prevention of Heart Disease

Diabetes is a global problem and reaching epidemic proportions In India there are 77 million people with diabetes and another 80 million are prediabetic. This is expected to rise to 134 million by 2045. Prevalence of diabetes is 8.6%% and of prediabetes is 10.1% Indian progress more rapidly from prediabetes to diabetes . High blood glucose due to diabetes damages your heart blood vessels and nerves.Adults with diabetes are 2-4 Times as likely to have heart disease or stroke as those without diabetes. people with diabetes develop heart disease at a younger age than non -diabetics the risk is further aggravated by accompanying conditions like smoking, hypertension, dyslipidemia, obesity,

Symptoms of Diabetes

Increased frequency of urine, increased frequency of drinking water, recurrent urinary infection, delayed wound healing, weight loss despite polyphagia, tiredness, weakness

Symptoms of Diabetes

TEST	NORMAL	PREDIABETES	PREDIABETES
Blood sugar fasting	<110	110-125	>125
Blood sugar 2hour Postprandial	<140	140-199	>200
HbA1C	<5.7	5.7-6.4	>6.4
Random			>200

When to get blood sugar tested

Symptoms of diabetes

Age>30,if normal repeat every 3 years,If prediabetic screen every year

BMI>25

Waist circumference >90cm in males and>80cm in females

Family H/O Diabetes

H/O diabetes in pregnancy

H/O child with birth weight >3.5kg

H/O PCOS

Weight loss despite polyphagia

Tiredness, weakness

What other investigtations need to be done

CBC, LIPID profile, Urine routne, Urine proteinBlood Urea ,Serum Creatinine, Retinal check-up

Treatment Guidelines

HbA1C	
6.5-7.5	LSM+Metformin
7.5-9.0	Metformin+OHA
>9.0 No Symptoms	Met+OHA
>9.0 + Symptoms	Insulin

Apart from glycar=enmic control adequate managmnt of hypertension ,lipid profile and obesity are recommended to decrease the risk of CVD

Goals Of Treatment

	IDEAL	SATISFACTORY	UNSATISFACTORY
Fasting Sugar	80-110	111-125	>125
2hr pp Sugar	120-140	141-180	>180
HbA1C	<7	7-8	>8

DR JYOTSANA LAMBA

President - Jammu Menopause Society

LIPID PROFILE: IMPLICATIONS ON HEART HEALTH

Cardiovascular disease remains a major cause of morbidity and mortality worldwide, accounting for nearly 30% of the total deaths. Abnormal lipid profile plays an important role in the progression of cardiovascular disease(CVD).Dyslipidemia is one of the modifiable risk factors for cardiovascular diseases. Identifying subjects with lipid abnormalities facilitates preventive measures.

Lipid profile test is a valuable tool to identify an individual's risk of having heart disease, heart attack and other cardiovascular conditions.

The test most often measures:

- Total Cholesterol: It is best if total cholesterol is lower than 200mg/dl. High level can increase the risk of heart disease.
- Low Density Lipoprotein-Cholesterol: sometimes called “Bad Cholesterol”. Too much LDL-C in the blood causes plaques to build up in the arteries which can block blood flow and lead to heart attack.LDL-Cshould be less than 130mg/dl. For women with Diabetes, level should below 70 mg/dl.
- High Density Lipoprotein-C :sometimes called “Good Cholesterol “because it helps carry away LDL cholesterol from the arteries. This keeps the arteries open and blood flows more easily. Women should aim for a HDL over 50mg/dl.The higher the better.
- Triglycerides: High level of triglycerides can increase the risk of heart disease. Level of TG should be less than 150mg/dl.

You need a lipid panel test if you have risk factors for cardiovascular disease:

Age over 50 in females and over 40 in males, Smoker, Obese, Sedentary life style, Having hypertension, Diabetes, first degree relative such as a parent or sibling who developed heart disease at an early age (Under 55 in males and under 65 in females).

What should you do if your lipid profile results are abnormal:

- Life style changes such as changing your diet, diet which helps to control cholesterol are olive oil, fish such as mackerel, nuts such as walnuts and almonds, oats and garlic. Avoid fatty foods, pastries
- Active life style: Start a exercise routine, walk for 45 minutes at least every day besides doing other forms of cardio exercises. Try to incorporate more activity into your daily life like walking, using stairs instead of elevators.
- Consult a Doctor and start cholesterol lowering medications such as statins and fibrates.
  Abnormal lipid profile plays an important role in the progression of CVD.

Prevention is better than cure, Identifying female with lipid abnormalities can facilitate preventive measures for cardiovascular diseases.

DR REETA DARBARI

President Gurgaon Menopause Society

VISCERAL FAT: A DAGGER TO THE HEART

Visceral fat is the fat found deep within the abdominal cavity, which surrounds the important organs including stomach, liver and intestines. It is different than subcutaneous fat, which lies below skin. It has direct implications on cardiovascular system, making it a significant health concern. Unlike subcutaneous fat, it is metabolically active, and can influence various bodily functions.

When one consumes more calories than are burnt by the body, it leads to accumulation of visceral fat. This visceral fat, can produce inflammatory cytokines and hormones, and serves as an endocrine organ, which secretes interleukins that exacerbate inflammation, induced insulin resistance, and impair vascular function. In obese patients adipocytes grow and accumulate triglycerides which is accompanied by increased leptin expression and development of leptin resistance, which in turn causes increased plasma free fatty acid concentration. More over increase in leptin concentration and decreased number of its receptors leads to production of pro inflammatory cytokines and blocks the action of anti inflammatory cytokines. Thus leptin may induce vascular calcification and cholesterol accumulation by macrophages, oxidative stress and increased tone of sympathetic nervous system and thus increase in blood pressure. All these factors lead to decreased arterial compliance as a result of atherosclerosis.

Excessive visceral fat increases risk of several heart related ailments, induced hyperlipidaemia, and thus increases risk of heart attacks and strokes. Also insulin resistance can make the patient predisposed to diabetes, which inturn again increases the cardiovascular risk.

In menopause, testosterone is produced by ovaries and adrenal in certain amounts. During this time, less of oestrogen causes decrease in leptin, and sleep patterns are also disturbed which causes increase in ghrelin, which prompts body to hold more visceral fat.

Waist circumference is a practical indicator of visceral fat, with values over 40inches in men and over 35inches in women being associated with higher risk of cardiovascular ailments.

Lifestyle modification forms the cornerstone of managing visceral fat. Consuming a balanced healthy diet, exercise and effective stress management together are the pillars of management.

The green meditarerian diet, which is low in refined sugars and saturated fats, is very effective in reducing visceral fat. A key element of this diet is to include walnuts which are rich in polyphenols. Consuming more of spinach and other leafy vegetables are also good in the management.

Liposuction, abdominoplasty and other cosmetic surgery treatments are ineffective in removing visceral fat .

Overall addressing the condition through heathy lifestyle choices is vital in reducing visceral fat, and thus the cardiovascular risk associated with it.

DR ANIL MEHTA

Past President
Jammu Menopause Society

LESSER KNOWN RISK FACTORS FOR HEART DISEASES: INFLAMMASSOMES

Aging is a complex but natural process which spans over a long period. Though natural this process of aging is associated with reproductive senescence. In majority of lower mammals usually life ends around the reproductive senescence but in whales (females) and women of human species experience the menopause and survive even years after transition to the menopause. Menopause is traditionally defined as a cessation of the menstrual cycle for a period of one year.

Although considered as a natural and physiological process, menopause and its changes in women's body are complex and adversely affect almost all systems of her body .Our understanding of actual physiological changes is limited but it is clear that human menopause is complete ovarian failure.

Menopausal women have low circulating levels of estrogens like E1, E2, E3, and raised FSH and LH levels Estrogens exert beneficial effect on various systems of body including cardiovascular health and reducing level of estrogens after menopause is associated with increased risk of cardiovascular diseases.

There are beneficial effects of estrogens on the cardiovascular health before the menopause.

Inflammasomes

Inflammasomes are a bridge between innate and adaptive immune systems. It is now being considered that one of the key functions of estrogens is to work as a potent anti inflammatory factor. Falling levels of circulating estrogens during the menopausal transition activate systemic innate response and this initiates the adaptive immune response. Inflammasomes is a key element of innate immune response after the menopause is attained.

Inflammasomes are a multi protein complex present in cytosol of macrophages, granulocytes, monocytes and few other immune cells collectively called myloid cells. They are responsible for activation of Capsase 1 which is responsible for processing pro inflammatory cytokines such as IL 18 and IL-18. Various key inflammasomes are NLRP 1, NLRP3, NLRC4 and AIM2.

Inflammasomes are released as Damage Associated Protein Patterns (DAMP) after Pattern recognition receptors (PRR) and Pathogen associated molecular pattern (PAMP) in the innate response and leads to the activation of adaptive immune responses which result is infiltration of peripheral immune cells particularly T cells invasion of systemic organs.

In the long run repeated or sustained activation of innate and adaptive immune response can create the chronic low grade inflammation typical of aging process.

Various experimental and public health studies suggest that chronic inflammation associated with decline in estrogen can potentiate immunological and metabolic dysfunction.

Because of this pro inflammatory process there is a risk of ischemic cardiac disorders. Incidence of CHD increases exponentially after the menopause

DR SANGEETA PAHWA
President - Amritsar Menopause Society

METABOLIC SYNDROME

What is metabolic syndrome?

Metabolic Syndrome is a group of Metabolic conditions that although lead to increased risk of heart disease individually, when present together and left untreated intensify the risk of CVD, stroke, and CVD mortality twofold and an increase in overall mortality 1.5fold. In India metabolic syndrome is found in 25% adults and is more prevalent in females (31.5%) than males (18.5%).

It is also known as
- Syndrome X
- Insulin resistance syndrome
- Dysmetabolic syndrome

Criteria for metabolic syndrome

Any 3 of 5 needed for Diagnosis of metabolic syndrome Waist circumference >80cm in females& >90cm in males
Blood Pressure >130/85mmHg
Fasting Blood Sugar >100mg/dl
Triglyceride >/=150 mg/dl
HDL Cholesterol < 50mg/dl in females &<40mg/dl in males

What are the Risk factors for metabolic syndrome?

The main risk factors for metabolic syndrome are
Abdominal obesity and insulin resistance in addition to certain genetic factor

Physical inactivity advancing age, female gender and proinflammatory state also have a contributary effect.

Apple-shaped body contour with more fat around the waist than the hip is associated with higher risk of metabolic syndrome. MS is present in 5% of patients with normal weight,22% of overweight patients, and 60% of obese patients. People with raised waist circumference and higher waist-hip ratio.

Metabolic syndrome has a strong link to insulin resistance. Insulin is needed by the body to help sugar enter the cells for energy use. People with insulin resistance cannot use glucose and blood sugar rises. The risk of T2DM is found to 7fold higher in patient with metabolic syndrome.

Apart from an increased risk of diabetes and heart disease metabolic syndrome is associated with an increased risk of fatty liver, kidney damage, obstructive sleep apnea, and dementia.

What are the symptoms of metabolic syndrome?

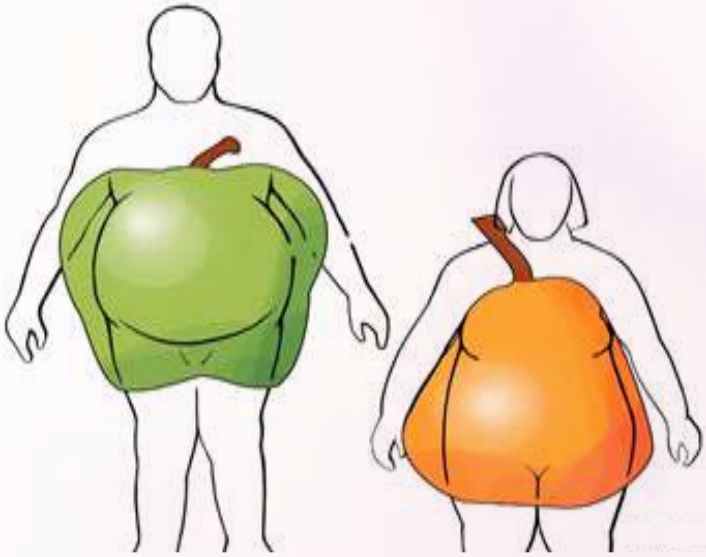
Not all aspects of metabolic syndrome cause symptoms. So, symptoms vary on the basis of the conditions . For example, high blood pressure, high triglycerides and low HDL cholesterol usually don't cause symptoms.

High blood sugar (hyperglycemia) can cause symptoms for some people, like:

- Darkened skin in armpits or the back and sides of your neck (acanthosis nigricans).
- Blurred vision.
- Increased thirst (polydipsia).
- Increased urination, especially at night.
- Fatigue.

Management and treatment

Regular screening for its five factors and keeping them under control with a healthy diet, regular exercise, adequate sleep,quitting smoking, decreased alcohol use, managing stress and regular intake of drugs like antihypertensives, antidiabetics, statins, and weight management can go a long way in preventing and reversing metabolic syndrome and thereby reducing associated risks of cardiovascular disease.



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PCOS AND CARDIOVASCULAR DISEASE

Women with PCOS have a higher prevalence of both diabetes and metabolic syndrome than weight and age – matched controls. Patients with diabetes and metabolic syndrome have been shown to have an eightfold risk of CVD –related mortality than those without these diagnoses Several traditional risk factors of CVD are prevalent in women with PCOS in including obesity, dyslipidemia, hypertension, metabolic syndrome, diabetices, and depression.

Standardized tools can be applied to assess an individual's long-term risk for a cardiovascular(CV) event. However, these tools, are likely to underestimate the true risk in women, since up to 20% of women have a CV event without an identifiable major risk factor. Moreover, women are more likely to present with a stroke as the first manifestation of CVD, an entity that is not considered in the above risk score calculations. A notable limitation of applying traditional risk assessment strategies for identifying CV event in the PCOS population is that women are typically diagnosed with PCOS in the second and third decades of life, accounting for a low absolute risk based on decreased duration of CV risk exposure. However, a young patient with a low absolute risk score, such a women, with PCOS, may have a significantly increased relative risk compared to others of
the same age. Therefore, there is an urgent need to develop and validate CV risk screening tools that can be used in reproductive –age women. All women with PCOS should have a cardiometabolic risk assessment. Timely and appropriate treatment in this young group will likely reduce future morbidity and mortality. In women who do not have significant risk factors, regular screening should be recommended.

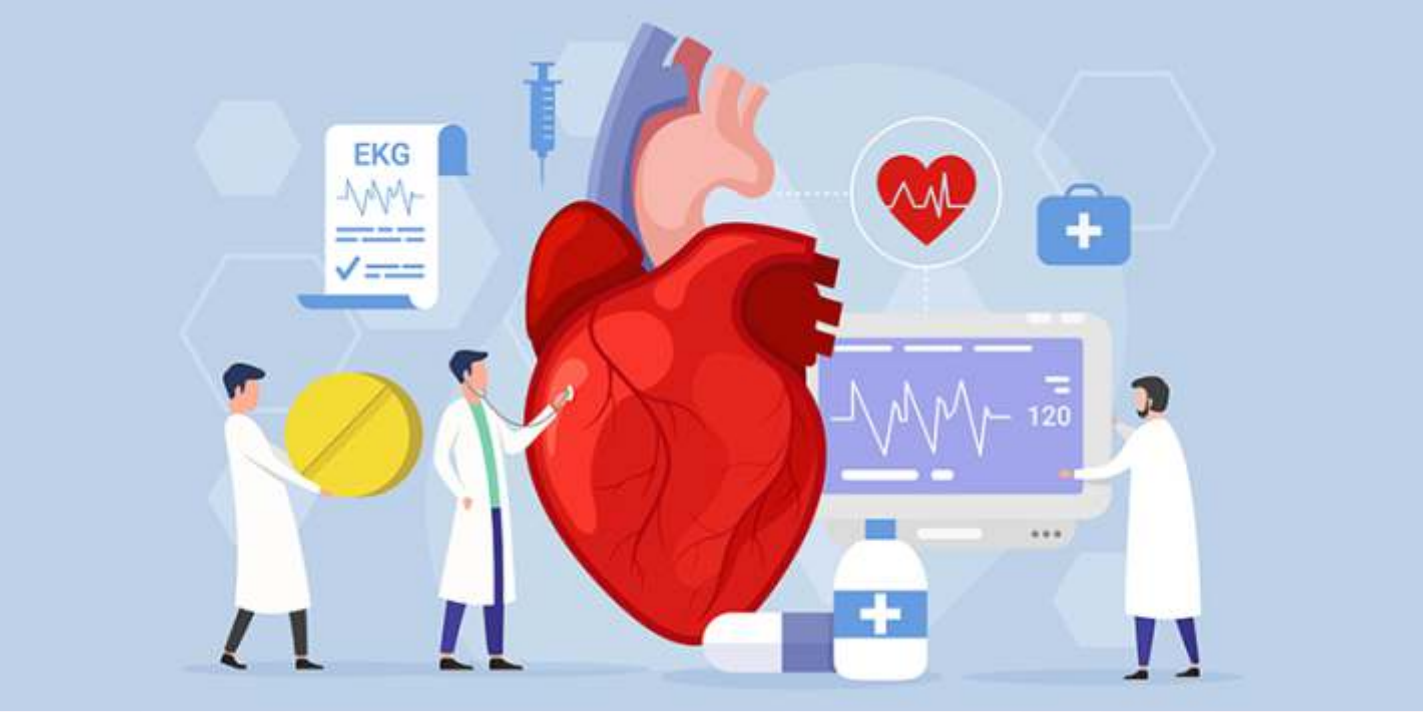
To better determine the risk of CVD in the asymptomatic PCOS population, several surrogate markers for subclinical atherosclerosis have been studied. These include changes in carotid intimamedia thickness (IMT), the presence of coronary artery calcification (CAC), as well as assessment of endothelial function of conduit and resistance vessels

Vascular dysfunction may be one of the earliest events in the process of developing atherosclerosis, and studies suggest that those subjects with vascular dysfunction are at increased risk of having a CV event. Both obesity and insulin resistance, entities that are prevent in the PCOS population, are associated with increased endothelial dysfunction. Endothelial function can be measured noninvasively via flow-mediated dilation (FMD) of the brachial artery, where a response is measured to increased blood flow after transient ischemia. A decrease in this vascular response suggests underlying endothelial dysfunction.

Carotid IMT is measured by Doppler ultrasound , and its accuracy depends on the sonographers skills. An increased carotid IMT positively correlates with the presence of coronary atherosclerosis and is prognostic of risk of CV events

Both electron beam and multislice computed tomography (CT) are used to noninvasively measure CAC as a marker of total coronary atherosclerosis burden. This marker can be used can to assess the risk of having a myocardial infarction or sudden cardiac death and has been shown to independently predict all-cause mortality. Compared to assessment of endothelial function and carotid IMT, fewer studies have measured CAC in the asymptomatic PCOS population

Despite evidence of a plethora of CV risks being prevalent in this population, evidence for CVDrelated morbidity and mortality in women with well-defined PCOS is, however, limited. The definition of PCOS has undergone changes over the past few decades, and longitudinal studies in large cohorts of women with PCOS are lacking. Most of the available data are derived from studies that included women with a retrospective diagnosis of PCOS and not based on currently accepted definition. One study reported that, after adjusting for confounders, women with polycystic appearing ovaries were more likely to have stenotic CAD (i.e., more coronary artery segments with >50 % diameter loss) than women with normal appearing ovaries (n=142).Large prospective studies with long-term follow-up of well- characterized populations of PCOS cases are needed to better clarify the magnitude of risk for CV related outcomes as well as to better identify any subpopulations within the diagnostic group of PCOS that may be particularly vulnerable to CV outcomes. In the meantime, there is consensus that women with PCOS be recognized as being at risk for CVD and that CVD prevention should be a critical part of the management of women with PCOS. Successful implementation of CVD prevention will include increasing physician awareness and adherence to available guidelines



DR. MANINDER AHUJA

Founder Faridabad Menopause Society
Past President IMS, Vice President SAFOMS

CAN PREGNANCY ADVERSE EVENTS PREDICT INCREASED CVD ?

Breast cancer is often believed to be the number one cause of death and disability in women. In reality, it is cardiovascular disease. According to the World Heart Federation, more than a third (35%) of deaths in women each year are due to cardiovascular disease. That's more than 13 times greater than deaths resulting from breast cancer. Taking positive steps today could lower your risk of developing cardiovascular disease and improve your life.

The number of cases of cardiovascular disease is high and continuing to rise. **What Women Need to Know – world menopause day 2023 white paper was published to let women be aware of their Cardiac risk** By understanding more about the causes and impacts of cardiovascular disease, you can take steps to reduce your risk.

Do you know that your pregnancy adverse events can also increase your chances of having a heart attack?
Yes that is true!

Let us look into those factors of pregnancy which can cause increase in heart disease.

- Irregular monthly menstrual cycles
- Early Menarche or age. when you started having menstruation
- H/o PCOS -were you diagnosed with PCOS in your early teens
- Pregnancy complications like high blood pressure, pregnancy induced diabetes, preterm delivery, Small baby, preterm baby, eclampsia.
- If you retain weight after delivery
- If you waist circumference is more than 80 cms
- If you develop frank diabetes after delivery
- Domestic violence ,depression
- If your interval between pregnancies is less than 3 years.
- Breast cancer treatments by radiotherapy and chemotherapy also increase chances of Cardiovascular disease so in breast cancer survivors death is not because of cancer but most of the cases Heart disease as angina or congestive heart failure
- Age of menopause early age of menopause before age of menopause as in India our age of menopause is 46 years so if menopause is between 40 and 46 years it is early menopause .Contact doctor for advise.
- Premature menopause that means menopause before the age of 40 years of age also increases your chances of heart disease .

Early detection of all these problem and starting medical treatment or life style modification early in life - like weight control, moderate exercise or physical activity no smoking limited alcohol can reduce your chances of getting a heart disease and metabolic syndrome

“Cardiovascular risk represents a lifetime of choices and experiences, but post partum period after delivery offers the opportunity of a single point in time to step back, take stock, and do all you can toward promoting future cardiovascular health for the rest of your life.”

DR. SUDHAA SHARMA

Vice President, Indian Menopause Society

MENOPAUSE AND CVD

Some interesting facts about human heart

- Human heart grows through childhood reaching its full size when a child stops growing.
- When you are a kid, your heart is about the same size as your fist.
- When adult it's about the same size as two fists.
- Our heart beats about
- 1,00,000 times in one day,
- 35 million times in a year.
- Average lifetime human heart beats more than 2.5 billion times.
- There is a difference in Man & Woman heart and the CVS.
- Premenopausal women are at lower risk of CVD as compared to men of similar age. This protective effect is attributed to oestrogens.

The Protective Estrogen Effect

- Estrogen protects CVH by improving lipid and carbohydrate metabolism.
- By regulating coagulation and fibrinolysis.
- Has direct short-term and long-term effects on the endothelial cells and the vascular smooth muscle.
- This protective effect ceases as she enters menopause.
- Risk of developing CVD becomes 2 folds higher & more if Menopause is premature.
- Women tend to develop CVD about 10 – 20 yrs later than men. This 10 yrs adv. is lost in case of premature Menopause or risk factors like diabetes, dyslipidaemia and smoking.
- CVD has been reported to be most important cause of death in women in India.

(Reported by registrar general of India) especially in middle age. New Delhi office of registrar general India, ministry of home affairs GOI 2009)

Men / Women

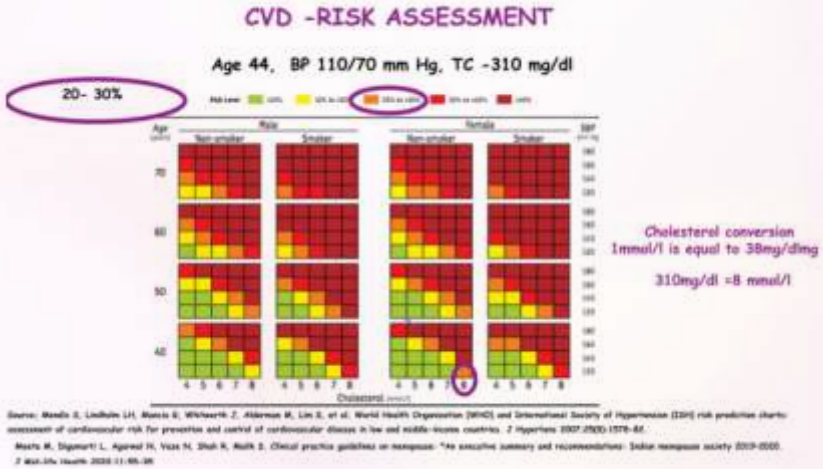
- The pathophysiology of arthrosclerosis is different in women when compared to men
- Woman have higher risk of blood coagulability, hence more vulnerable to formation of thrombus.
- In women endothelial dysfunction, small vessel size and diffuse atherosclerosis are a major cause of ischaemia
- Atherosclerotic plaques in women are less fibrotic
- Has more lipid filled foam cells,
- Has greater potential for reversibility
- But also for plaque rupture and thrombosis
- Women are much more likely to have a typical heart attack symptoms (Dr Lili Barouch, Director Johns Hopkins, Columbia)
- Women are more likely to get less common symptoms such as indigestion, shortness of breath, back ache & sometimes absence of obvious chest discomfort

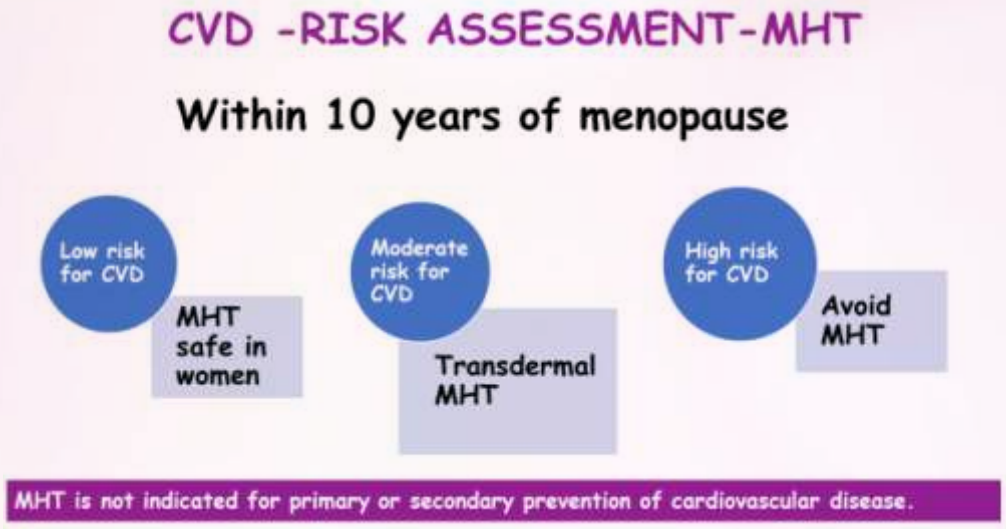
CVD and Risk Factors

- **GDM:** In addition to development of diabetes, GDM also CVD risk
- **Gestational Hypertension:** Causes risk of development of CVD, GH is linked with IR and dyslipidaemia
- **PCOS:** Women with PCOS may have several CVD risk factors such as IR, high LDLC, Central adiposity, HTN, elevated CRP and homocysteine levels.
- **Hypertension:** in CVD mortality with each 20 /10 mm in BP
- **Diabetes:** CVD twice as common
- **Metabolic syndrome:** Has an overall negative impact on CVS and worsens prognosis in women
- **Anaemia:** according to WISE study Lower HB levels are linked with adverse CV outcomes.
- **Depression:** (WHI) Independent predictor of CAD
- **Smoking:** More number of cigarettes more cardiac events Smoking Cessation decrease CVD 50%
- **Obesity:** Increased BMI – 37% increased incidence of CVD

Valuation of Risk Factors

- History
- Physical Examination
- Risk Assessment Models





Current guidelines & Considerations on CVD Preventive therapies in women.

General guideline recommendations	Sex-specific considerations
BP	
Encourage optimal BP of <120/80 mm Hg through lifestyle approaches BP categorization Normal: SBP <120 mm Hg and DBP <80 mm Hg Elevated: SBP 120–129 mm Hg and DBP <80 mm Hg Stage 1 hypertension: SBP 130–139 mm Hg or DBP 80–89 mm Hg Stage 2 hypertension: SBP ≥40 mm Hg or DBP ≥90 mm Hg BP treatment thresholds Stage 1 hypertension: clinical CVD, diabetes, or ASCVD risk ≥10% Stage 2 hypertension: no history of CVD and ASCVD risk <10%	Use thiazide diuretic as first-line agent in older women for osteoporosis prevention Avoid atenolol, ACE inhibitors, and ARBs during pregnancy Treat hypertension (≥140/90 mm Hg) during pregnancy Evaluate women with preeclampsia within 3–12 mo of delivery and treat cardiovascular risk factors
LIPIDS	
Encourage optimal lipid levels through lifestyle approaches: LDL cholesterol <100 mg/dL, HDL cholesterol >50 mg/dL, triglycerides <150 mg/dL, and non-HDL cholesterol <130 mg/dL Statin treatment groups: Clinical ASCVD Severe hypercholesterolemia (LDL ≥190 mg/dL) Diabetes Primary prevention: ASCVD risk ≥20% or 7.5%–<20%, depending on presence of risk enhancers	Stop statins 1–2 mo before attempting pregnancy in women at low to moderate risk. Consider continued use of water-soluble statins in very highrisk pregnant women. Statin use while breastfeeding is not recommended. Risk enhancers: history of preeclampsia, premature menopause (<40 y), inflammatory conditions (eg, rheumatoid arthritis or lupus) Consider other APOs to assess risk and to guide counseling: gestational hypertension, gestational diabetes, preterm delivery, delivering small-forgestational-age infant

General guideline recommendations	Sex-specific considerations
Aspirin	
Aspirin in individuals with CVD unless contraindicated Low-dose aspirin can be considered for primary prevention among select adults at high ASCVD risk and low bleeding risk.	Start aspirin at 12 wk of gestation to prevent preeclampsia in women at high risk of preeclampsia and consider in women at moderate risk of preeclampsia. Obtain and document pregnancy history throughout a woman's life course, and identify APOs as ASCVD risk factors.
Smoking Cessation	
Recommend smoking cessation and avoidance of environmental tobacco	More directly address weight gain and anxiety management concerns with female smokers reluctant to quit.
Diet	
Diet emphasizing intake of vegetables, fruits, legumes, nuts, whole grains, and fish Diet limiting consumption of saturated fat, cholesterol, sodium, processed meats, refined carbohydrates, and sweetened beverages	
Exercise	
Engage in 150 min/wk of moderate-intensity or 75 min/wk of vigorousintensity aerobic exercise Additional cardiovascular benefit with 300 min/wk of moderateintensity or 150 min/wk of vigorous-intensity aerobic	Engage in muscle-strengthening activities ≥2 d/wk
Weight loss/maintenance	
Maintain or achieve an appropriate body weight through comprehensive lifestyle intervention Higher levels of physical activity recommended (≥300 min/wk) to maintain weight loss	

General guideline recommendations	Sex-specific considerations
Environmental Exposures	
Assessment of exposure to environmental hazards (eg, living near a highway, unregulated private well for drinking water, house built before 1978). Recommendations based on cardiovascular risk (eg, mask use, air filtration, green spaces) Environmental justice initiatives (eg, renovation of lead water pipes infrastructure, built environment, and green spaces).	Consider lead monitoring during pregnancy and menopause in highrisk populations (eg, child affected at home, old housing)

ACE indicates angiotensin-converting enzyme; APO, adverse pregnancy outcome; ARB, angiotensin receptor blocker; ASCVD, atherosclerotic cardiovascular disease; BMI, body mass index; BP, blood pressure; CVD, cardiovascular disease; DBP, diastolic blood pressure; HDL, high-density lipoprotein; LDL, low-density lipoprotein; and SBP, systolic blood pressure.

Heart-Healthy Lifestyle Choices

- Stop Smoking
- Stay Active
- Eat Right
- Maintain a Healthy Weight
- Know Your Numbers – BP, Lipids
- Medication

DR. ANJU SONI

President Indian Menopause Society
2024 - 2025

HOT FLASHES AND CVD

Vasomotor symptoms (Hot Flashes and Night Sweats) are seen in 80% of menopausal women. Hot flashes are a sudden feeling of warmth over the face, neck, and chest, red blotchy skin, and a rapid heartbeat, they usually start 1-2 years before menopause and may last for 7- 10 years. For years vasomotorsymptoms have been regarded to affect quality of life but do not affect physical health. However, a growing body of literature is linking vasomotor symptoms to cardiovascular disease.

A study connecting the dots between vasomotor symptoms and CVD was published in the Journal of the American Heart Association which followed women between 42 to 52 years for 22 years Women with frequent and persistent VMS have a 50-75% increased risk for future cardiovascular events.

Another analysis published in the AHA journal has shown that the more severe the vasomotor symptoms higher the risk of CVD and also risk was slightly higher in those in whom symptoms started after menopause than before it. A higher frequency of night sweats was more strongly associated with CVD than daytime hot
flashes., Studies have also shown that women with VMS have associated higher risk factors for heart disease like hypertension, diabetes, and abnormal lipid profiles.

It is important to keep in mind that this does not mean you are destined to have a heart attack if you have vasomotor symptoms but that you have a higher probability A hot flash is not in your control. CVD are leading cause of death, but the good news is that 80% of these are preventable. We need not be terrorized but consider this as a window of opportunity, to prioritize our heart health Women with hot flashes should assess their risk factors, manage them adequately, and adopt a heart-healthy lifestyle

DR. BIPASA SEN

Secretary, Indian Menopause Society

MHT AND HEART HEALTH

Hormone Therapy (HT) and its relation to heart health is always to be discussed as per the risk benefit assessment of each individual. First and foremost, it is to be noted that use of hormone merely for prevention of cardiovascular disease (CVD) is NOT recommended. But yes, Hormone, when used for some other indications, is beneficial for heart for several reasons. CVD may be broadly categorized as (i) Coronary Artery Disease (CAD), (ii) Stroke and (iii) Venous Thrombo Embolism (VTE).

The Coronary Artery Disease is initiated by formation of Atherosclerotic Plaque – which are cholesterol laden macrophages (Foam Cells) adhered to the damaged vascular endothelium expressing cytokines and other inflammatory agents. Instability and rupture of sizeable plaque create CAD.

The female hormone estrogen always protect women from cardiovascular emergencies through several mechanisms

- Estrogen improves lipid, carbohydrate, insulin metabolism, raises HDL level, lowers LDL, lipoprotein, homocysteine, fibrinogen, lowers calcium influx in vascular smooth muscle, protect against the toxic effects of oxidized LDL and thus helps in CVD prevention.
- Estrogen influences endothelial production of nitric oxide & prostacyclin and also their vasodilatory & antithrombin effects.
- Estrogen prevents post menopausal increase in central (android) fat and helps maintaining gynaecoid fat distribution.
- Estrogen is also beneficial to diabetes mellitus through its action on insulin metabolism.
- Thus estrogen control the risk factor of CAD by its effect on diabetes, waist circumference and dyslipidaemia.

Post menopausal women & women with premature menopause have an elevated risk of CVD due to decrease in endogeneous estrogen level which had protected them from CVD in early life.

The net effect of hormone therapy depend upon the Nature of hormone, Route of Administration, Dosage & Time of initiation. Keeps Trial have shown that conjugated equine estrogen or transdermal estradiol patch alongwith cyclic micronized progesterone given within 3 years of menopause has no effect on atherosclerosis or myocardial infarct and is link to substantial reduction of CVD risk. Elite Trial showed that 17 beta estradiol with cyclic progestin given within 6 years of menopause or below 60 years of age prevents development of atherosclerosis and Coronary Artery Disease. This is because of initiation of hormones during "Window of Opportunity" – when vascular endothelium is healthy and atherosclerosis is yet to set in.

Risk of Stroke is, however, not affected by the timing hypothesis because the cause here is of thrombotic rather than atherosclerotic mechanism. Hormone therapy is NOT contraindicated in hypertension but is to be avoided in established case of CVD. Transdermal estrogen therapy is ideal in case of risk of Stroke or VTE. Regarding Tibolone – its beneficial effects on lipid profile and coagulation factors is well documented, but role in CVD reduction is uncertain.

To conclude, in women with low risk of cardiovascular disease, hormone therapy with estradiol alongwith micronized progesterone or dydrogesterone initiated within 6 years of menopause or in less than 60 years of age, prevents progression of risk factors. In women with moderate risk–opt for transdermal estradiol or spray. In women with high CVD risk-Hormone Therapy is to be avoided.

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EXERCISE & HEART HEALTH

Menopause embarks a turning point in womens life. Gone are the days when menopause was considered not only pause of menses but pause of social productive and sexual life also. The key to a productive midlife and postmenopausal life is fitness.

Transition to menopause predisposes the woman to increased CVD risk, due to visceral obesity, atherogenic dyslipidemia, dysregulation in glucose homeostasis, Non alcoholic fatty liver disease and hypertension.

Cardiovascular disease (CVD) is the leading cause of death in women entering menopause, involving 50% of cases, with 20% attributed to ischemic heart disease (IHD) and 13% to stroke.

Why is exercise important after Menopause ?

It not only improves heart health, encourages better sleep, decreases mood swing and reduces anxiety improves bone health and helps maintain healthy weight.

What type of exercises are best ?

- Cardiovascular exercises help to improve heart health after menopause.
- All types of “aerobic” exercise have a positive effect for cardiovascular disease.
- Cardiovascular exercise improves how efficiently your heart pumps blood around your body & also improves the health of your lungs and blood vessels.
- Some examples of cardiovascular exercise include:

  · Dancing · Cycling · High-intensity interval training (HIIT) · Style workouts · Running
- Strength exercises – they reduce the risk of osteoporosis which is due to lack of oestrogen

  · Doing bodyweight exercises such as squats, planks, or push ups (from your knees if it helps)
  · Lifting kettlebells, dumbbells, or other weights
  · Using resistance-based gym machines
  · Doing yoga or pilates

- Balance & mobility exercises- To maintain balance & decrease the risk of fall Yoga, Pilates, Tai chi
- Utilitarian exercise (household chores)
- Mindful exercise

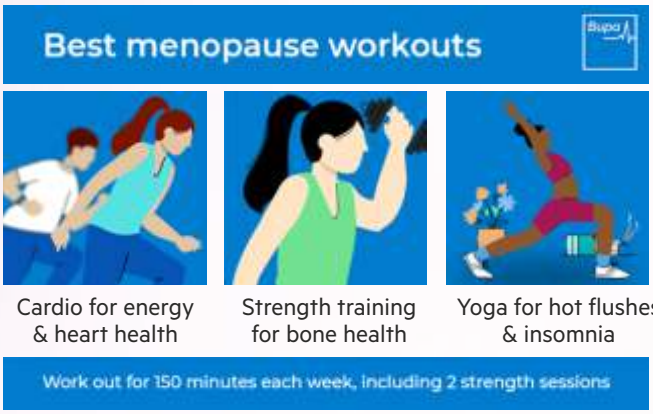
How much is enough ?

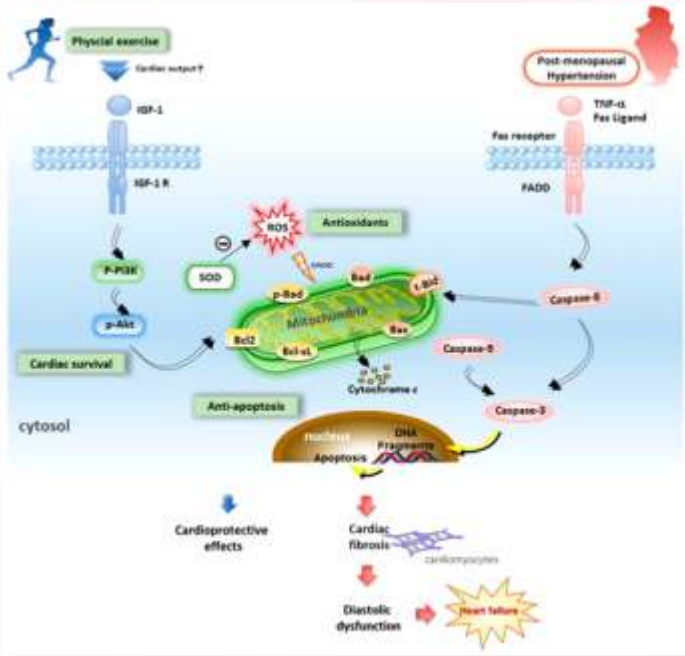
- It's recommended that women accumulate at least 150 minutes per week of moderate exercise (such as brisk walking) or 75 minutes per week of vigorous exercise.
- This could be 30 minutes of exercise five times a week
- Some movement snacking could be incorporated during day.
- You can do some squats while making tea or stand on one leg while brushing your teeth
- Resistance training is also recommended for 20 minute sessions, two to three times a week

Your exercise prescription !!

- For optimizing health a consortium of exercise will be most beneficial

  Aerobic exercise three times a week
- Resistance exercise (eg. weight training weight bearing) two /three times a week
- Utilitarian exercise (Household chores, yard work,gardening etc.)4-7 days a week
- Mindful exercise (quiet reflective time combined with moderate exercise, eg hatha yoga meditation walking etc) twice a week





- *European Heart Network. European Cardiovascular Disease Statistics 2017 edition. Brussels, Belgium: European Heart Network, 2017. (available at: http://www.ehnheart.org/cvd-statistics/cvd-statistics-2017.html) [Google Scholar]*
- *What's the best exercise for the menopause? Dr Samantha Wild Clinical Lead for Women's Health and Bupa GP*
- *01 February 2023 Prescription of exercise in the perimenopause and menopause – Dr Maninder Ahuja*

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Secretary, Ludhiana Menopause Society

NUTRITION AND CVD

Cardiovascular disease (CVD) is the leading cause of death in men and women. There are several risk assessment models for coronary heart disease. Unhealthy diet is a modifiable risk factor for CVD. A healthy and balanced diet can remarkably reduce this risk.

The diet plan for a healthy heart should include the following

- Fibre rich foods like oatmeal, almonds, raspberry, pear, apple, boiled green peas, cooked barley and chia seeds etc.
- Diet rich in fruits and vegetables.
- Use of mono unsaturated fats like olive oil, sunflower seeds oil, safflower seeds oil, peanuts and peanut butter. Avoidance of Trans fatty acids and saturated fats as in cakes, biscuits, sausages, hydrogenated oils and margarine.
- Foods with low glycemic index like green vegetables, chickpeas, kidney beans, cherries, black berries, lentils, plums, and kiwi. To avoid mango, banana, watermelon as they have high GI.
- A diet rich in omega fatty acids derived from fish like salmon, herring. Plants like chia seeds, flaxseeds, soyabeans and edamame.

Mediterranean diet has been associated with reduced risk of coronary artery disease. It emphasizes on plant based foods including lots of vegetables, fruits, beans, nuts, whole wheat grains, brown rice, fish and yoghurt. Reducing intake of sugar, choosing fish and poultry in the place of red meat is also helpful. A nutritious, balanced and healthy diet is the mainstay of a healthy heart.

DR SWEETY SONI

Co chair
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IMS

WHICH OIL TO USE ?

Fats are an important component of a balanced diet. The unique flavour and popular taste of Indian food typically depends on the oil and spices. Healthy fats in the diet can be maintained by using the right kind of cooking oil.

When choosing a cooking oil, consider its Smoke Point, content of healthy fats, taste and flavour enhancement, versatility and impact on your home budget. It is always better to use heart healthy oils rich in polyunsaturated & monounsaturated fats and avoid saturated & trans fats.

Smoke point – it is the temperature at which oil starts producing smoke. Oils with higher smoke points are good for frying while those with lower are good for baking and sauteing.

Source from where fats are usually derived

- Plants – Vegetable seeds and nuts
- Animal source - Dairy (Ghee / butter) or animal fat (lard)

You can have various oils in your kitchenette for various purposes.

Sunflower and Rice bran oil are good for frying as they maintain their nutritional value even at high temperature. Rice bran oil is actually versatile oil that can be used for cooking as well as baking, due to its neutral flavour. Mustard and sesame oil have a strong flavour making it apt for pickles and vegetables. Groundnut oil has a slight nutty flavour, which can be used for all purposes.. For salads and dressing, use lighter ones like Olive oil. Coconut oil gives the classic tropical flavour to the food, but should be used in moderation as it has very high content of saturated fats. Restrict the usage of highly refined vegetable oil like canola or corn or palm oil.

After many years of myths in western world literature, there is a resurgence of use of Ghee in recent times. Newer studies are now supporting the advantages of ghee including increase in HDL (good cholesterol}, rich in Vitamins and various Antioxidants. It is also stable at room temperature for few months.

Keep oils in cool dark place. Do not use rancid oils. Avoid overheating and reusing heated oils. Incorporating different oils into our cooking will not only boost the flavours and textures of dishes but also provide us with essential nutrients and promote overall well-being.

Use plant seed oils and ghee in moderation to maintain “Health bhi...Taste bhi...”

DR ALOK SHARMA

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Consultant Obstetrician & Gnaecologist
Maternal & Child Health Centre

CAN WE USE GHEE?

Ghee, often referred to as clarified butter, is a delightful golden-yellow semi-liquid with a unique aroma and flavor. Its roots trace back to ancient India, where it gained prominence in Ayurveda, the traditional Indian system of medicine. Derived from the Sanskrit word ghrita , ghee has been cherished for its culinary, ritualistic, and healing properties. Known as "liquid gold" in India, ghee became indispensable in hot climates where preserving regular butter without refrigeration posed challenges. Ayurveda emphasizes the purity of ghee made from cow's milk, known as shuddh desi ghee, which translates to "pure indigenous ghee." This version is celebrated for its nutritional richness, especially in supporting digestive health, making it a suitable option even for those with lactose intolerance

GHEE NUTRITION

One tablespoon of ghee contains:

- Calories: 130
- Protein: 0 grams
- Fat: 15 grams
- Carbohydrates: 0 grams
- Fiber: 0 grams
- Sugar: 0 grams

Ghee is a good source of: Vitamin A, Vitamin D, Vitamin K and Vitamin E. Studies have shown that vitamin E has significant antioxidant properties. Antioxidants like vitamin E have been linked to lowering the risk of cancer, arthritis, and cataracts. Vitamin E can also help reduce the risk of heart disease.

Ghee Benifits

Ghee is a rich source of vitamins, antioxidants, and healthy fats. While you should eat fat in moderation, studies show that eating fatty foods such as ghee can help the body absorb some essential vitamins and minerals. Cooking healthy foods and vegetables with ghee may help you absorb more nutrients.

Research has found several potential health benefits of consuming ghee:

Has anti-inflammatory effects

In alternative ayurvedic medicine, ghee has been used on the skin to treat burns and swelling. While this isn't a scientifically proven benefit, ghee does contain butyrate, a fatty acid that has known anti-inflammatory properties. Studies show that the butyrate in ghee can soothe inflammation in the body.

Combats obesity

Ghee is a significant source of conjugated linoleic acid, or CLA. Studies show that CLA may help fight obesity. Research suggests that the CLA found in this type of butter may help you lose weight and cut body fat in some people.

Supports heart health

Though ghee is rich in fat, it has high concentrations of monounsaturated omega-3s. These healthful fatty acids support a healthy heart and blood vessels. Studies show that using ghee as a part of a balanced diet can help reduce unhealthy cholesterol levels.

Potential risks of ghee

Because ghee is so rich in fat, you should eat it in moderation as a part of a balanced diet. Talk to your doctor when considering your best dietary choices. Keep the following in mind before adding ghee to your diet.

Heart disease

While ghee, in moderation, can help lower your chances of heart disease, too much saturated fat can raise your odds of getting the disease. People with other risk factors for heart disease should be cautious when adding ghee to their diet.

Weight gain

Though the CLA in ghee has been shown to reduce weight gain in some people, ghee is also a calorie-dense and fat-rich food. Despite its health benefits, eating too much of it can lead to weight gain and a higher chance of obesit.

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INTERMITTENT FASTING AND HEART HEALTH

Intermittent fasting is strategically withholding normal caloric intake for a period of time and eating as you normally would during the unrestricted times. IF has garnered attention for its potential benefits on cardiovascular health.

Understanding Intermittent fasting (IF) :
The concept of IF involves alternating periods of eating with periods of fasting or abstinence from calorie intake. Common patterns of IF include –

- 16/8 method :daily 16-hour fasting
- 5:2 method: fasting for 24 hours twice per week
- alternate-day fasting- eating typical meals on one day and fasting or eating calorie restricted diet the next day

The beneficial effects of IF can be hypothesized based on known mechanisms of IF related to cardiovascular health and metabolic regulation.

Potential Mechanisms

- Reduce BMI: IF can help reduce body weight and body fat, which are significant risk factors for cardiovascular disease.
- Improved Lipid Profile: Some studies suggest that IF may lower bad cholesterol (LDL) and triglycerides, which are crucial for preventing heart disease.
- Reduced Blood Pressure: Regular fasting might lead to reductions in blood pressure, thereby decreasing the risk of stroke and heart disease.
- Insulin sensitivity : By improving insulin sensitivity, IF can help in managing or preventing type 2 diabetes, a major risk factor for cardiovascular disease.
- Reduced oxidative stress and inflammation: Intermittent fasting may reduce systemic inflammation, a risk factor for atherosclerosis and other cardiovascular diseases.
- Autophagy: Fasting triggers a metabolic pathway called autophagy which removes waste materials such as dysfunctional proteins and damaged cellular components

Improved autophagy is linked to reduced oxidative stress and inflammation, both of which are beneficial for heart health.

Intermittent fasting not only decreases the potential risk for development of cardiovascular diseases but it could also have implications for myocardial perfusion particularly under ischemic conditions by following mechanisms-

- IF has been shown to improve metabolic efficiency and increase stress resistance in cardiac cells. This could potentially lead to better myocardial perfusion during ischemic episodes by enhancing the cardiac ability to cope with reduced blood flow.

- Decreased oxidative stress and inflammation contributes to reduced endothelial dysfunction. Improved endothelial function can enhance myocardial blood flow during ischemia.

- Autophagy might help in removing dysfunctional myocardial cells and improving overall cardiac function.

Clinical Considerations:

- Individual Variability: The impact of IF on myocardial perfusion can vary widely among individuals based on their underlying health conditions, genetic predispositions, and adherence to fasting protocols.

- Not for Everyone: IF may not be suitable for everyone, including pregnant women, people with diabetes, or those with a history of eating disorders.

- Skipping Breakfast: Some forms of IF involve skipping meals like breakfast, which some studies suggest might increase the risk of coronary heart disease.

- Adherence and Nutritional Balance: The success of IF in improving heart health depends significantly on individual adherence to the fasting regimen and maintaining a balanced intake of nutrients during non-fasting periods.

- Consult Healthcare Providers: Before starting any new diet regimen, including intermittent fasting, it is advisable to consult health care providers, especially for individuals with existing health conditions.

- Integration with Other Therapies: For patients with established ischemic heart disease, IF should be considered as part of a broader therapeutic approach, including pharmacotherapy and lifestyle modifications.

Public Health Perspective:

- While IF shows promise, it is not a one-size-fits-all solution and should be considered as part of a broader lifestyle approach that includes regular physical activity and a heart-healthy diet.

- Public health messages should focus on the potential benefits while also highlighting the importance of individual suitability and professional guidance. By raising awareness about the potential benefits and considerations of intermittent fasting, individuals can make informed decisions about incorporating this dietary approach into their lifestyle for potential heart health benefits.

Conclusion

Cardiovascular diseases account for around 32% deaths worldwide. Balanced healthy diet, regular exercise , avoiding smoking are some known strategies to control the modifiable risk factors for cardiovascular disease. During the last decade research shows intermittent fasting can be beneficial for cardiac health in terms of weight loss, reducing inflammation, improving dyslipidemia and insulin resistance .

While IF shows promise in improving various markers of cardiovascular health, it is essential to approach this dietary pattern with consideration of individual health conditions and lifestyle factors. Clinicians should guide patients based on their specific health profiles and ensure that any form of dietary intervention, including IF, is tailored to meet individual nutritional needs and health goals.

DR. RUCHE BHARGAVA

Bhargava Advanced Gynae Surgery Cancer Centre
Jalandhar Menopause Society

SKIPPING BREAKFAST

Rise and shine!

Breakfast means breaking the overnight fast. If this source of quick energy is not available, then the result is a sensation of hunger, fatigue and decreased concentration. Breakfast provides key nutrients. Studies show that children who eat breakfast eat more fruit, drink more milk and consume less saturated fats than those who skip breakfast. Better test scores and focus have also been noted.

Research gives us enough reasons to make room for the most important meal of the day.It jump starts your metabolism and this helps you burn more calories throughout the day.

When you skip breakfast the body gets the message to conserve rather than burn calories.
Advantages of breakfast:
• Helps to lower BMI • Less consumption of fat throughout the day • Higher calcium intake
• Higher daily fibre intake • Combats obesity

Several pieces of evidences have reported the association between omission of breakfast and a higher risk of cardiovascular diseases. This may be related to the metabolic effects breakfast skipping has on the blood sugar levels, overeating during the day and the connection between skipping breakfast and other poor life style habits that may promote heart diseases. Another study found that skipping breakfast leads to higher levels of LDL, which may contribute to heart attack and stroke risk. It has also been seen that if you start with a healthy satisfying meal in the morning , you are less apt to nibble on unhealthy things during the day!

However, newer researches suggest that skipping breakfast may not be as bad as many of us believe! Studies show that 15%of adults skip breakfast regularly! So is skipping breakfast really risky?

The answer is complex. Studies conclude, that eating breakfast did not impact weight loss. Skipping breakfast may lower total calories intake , but if we can optimize our nutrient intake at other meals of the day ,then one should not feel guilty about skipping breakfast!

All said and done. Break fast is like exercising. If you make enough room for it in the morning, you will look and feel great throughout the day!

DR SANA TIWARI

Associate consultant - Cloudnine Hospital Faridabad

STRESS AND HEAT HEALTH – DON'T UNDERESTIMATE STRESS

In our mission to improve women 's health and well being, attention should be given on stress and cardiovascular disease. Its more relevant in women in menopausal transition.

Stress which can be due to personal and professional life has a profound impact on human body. Stress increases inflammation which activate factors which lead to formation of plaque in arteries leading to cardiovascular disease. Stress drives increase in cathecolamines mainly adrenaline which causes the heart to beat faster and raise BP.

Chronic stress leads to behavioural and physiological changes such as raised blood pressure, deranged cholesterol, chest pain, irregular heartbeats, shortness of breath, increased risk of heartattack and stroke.

In people with preexisting heart disease , sudden stress can exacerbate their symptoms.

People who are unable to cope up with stress resort to unhealthy diet, smoking , use of alcohol . These all lead to high cholesterol and hypertension which are primary risk factors of heart disease.

There are ways to manage stress. Instead of taking burden let stress be a reason to exercise and motivate a person to do it . Exercise for 30 mins , 5 days / week can help in controlling weight , decrease blood pressure , improve cholesterol .

Research suggest that anxiety or longterm stress increases risk for sudden death , hence yoga and meditation helps in it. Lifestyle modifications , balanced diet, good sleep , quitting smoking, alcohol, caffeine also help.

A strong support system : Professional by a therapist, group and emotional support by friends and family . Keep a good connect with everyone for sense of belonging and reduce feeling of isolation. Last but not the least take good care of yourself

DR. ANJU GUPTA

President- Aligarh Menopause Society

POLLUTION AND HEART HEALTH - THE SILENT LINK

Cardiovascular disease is the world's leading cause of death and disability. Traditional risk factors include increasing age, hypertension, dyslipidemia, smoking, diabetes . In today's world Pollution is not only an environmental isse but has been proven by scientific research, to have far reaching implications for heart health.

Most Significant Is

Air Pollution

- A ubiquitous consequence of industrialisation and rapid urbanisation it includes fine particulate matter and toxic gases
- FINE PARTICULATE MATTER- (PM-2.5). - Emitted from vehicles, factories and power plants it infiltrates deep into the lungs and blood vessels triggering inflammation and atherosclerosis ultimately affecting the heart. It also rapidly ages the blood vessels leading to fast build up of calcium in coronary arteries
- TOXIC GASES- like Carbon Monoxide, Sulphur Dioxide and Nitric Oxide released from vehicles, factories can also constrict blood vessels and thus impair heart function

Indoor Pollutants

- Tobacco smoke, volatile organic compounds and household chemicals also contribute to exacerbation of cardiovascular disease specially in susceptible individuals

Water & Soil Pollution

- Contaminants like heavy metals, pesticides and industrial chemicals seep into the water and find their way into the food chain. These are also atherogenic and can lead to hypertension, peripheral vascular disease and thus impact heart health
- Other common pollutions like LIGHT and NOISE pollution can cause stress and indirectly affect heart health.

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SECOND HAND SMOKE & HEART DISEASE

Secondhand smoke, once dismissed as a mere annoyance, is now recognized as a serious **health hazard**, particularly concerning cardiovascular health. As research delves deeper into the effects of passive smoking, the evidence linking it to heart disease becomes increasingly alarming.

Studies have consistently shown that exposure to secondhand smoke can lead to a **heightened risk of developing heart disease**, even in non-smokers. The toxins present in cigarette smoke, including carbon monoxide and various carcinogens, can infiltrate the body of bystanders, triggering inflammation and damage to the delicate lining of blood vessels. Over time, this damage can contribute to the development of atherosclerosis, the buildup of plaque within arteries, and increase the likelihood of **heart attacks and strokes.**

Furthermore, secondhand smoke exposure has been linked to other risk factors for heart disease, such as **elevated blood pressure** and **cholesterol levels.** Even brief exposure to secondhand smoke can have immediate effects on cardiovascular function, causing a temporary increase in heart rate and blood pressure.

Vulnerable populations, including **children, pregnant women**, and individuals with **pre-existing heart conditions**, are particularly susceptible to the harmful effects of secondhand smoke. Children exposed to secondhand smoke are at an increased risk of developing cardiovascular problems later in life, underscoring the importance of creating smoke-free environments to protect the health of future generations.

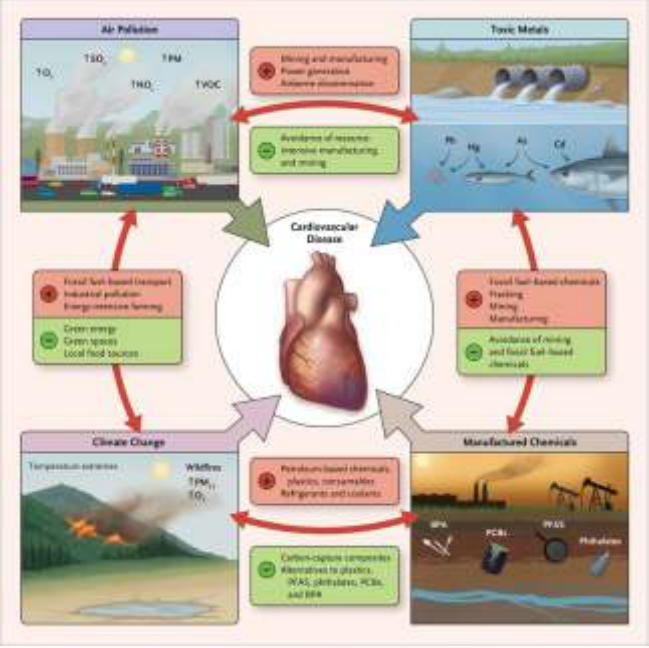
Despite widespread awareness of the dangers of smoking, the issue of secondhand smoke remains pervasive in many public spaces and private residences. **Legislative measures**, such as smoke-free laws and tobacco control policies, have made significant strides in reducing exposure to secondhand smoke. However, continued efforts are needed to ensure comprehensive protection for all individuals from the harmful effects of passive smoking.

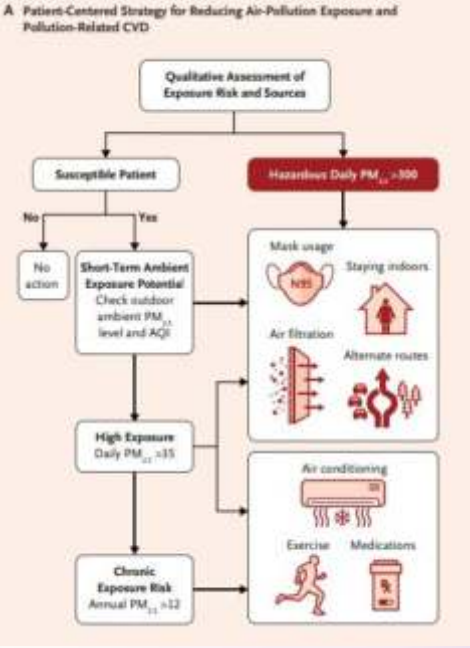
In conclusion, secondhand smoke poses a significant threat to heart health, with far-reaching implications for public health. By raising **awareness**, implementing **effective policies**, and promoting **smoke-free environments**, we can work towards mitigating the impact of secondhand smoke and safeguarding the cardiovascular well-being of individuals worldwide

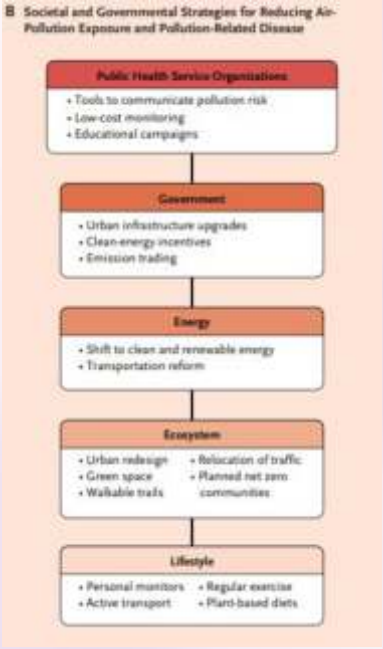
To address this problem we need a multifaceted approach

- Strict environmental regulations to control emissions and pollution at its source
- Investing in cleaner energy sources
- Encourage green urban planning
- Sustainable public transport options
- Education and awareness campaigns for early detection and prevention of cardiovascular disease
- Electric Crematoriums
- On a Personal Level
- Walk, Cycle or use Car Pool
- Plant more trees
- Say NO to plastics
- Avoid use of gas stoves, fireplaces, plug- in scents, incense
- Limit outdoor activity during high pollution days
- Use air purifiers

By recognising the intricate interplay between pollution and heart health, and taking decisive action we can strive towards a future where clean air and water becomes a fundamental right not a luxury for generations







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WHAT IS ANGIOPLASTY ?

Angioplasty is a procedure used to open blocked coronary arteries caused by coronary artery disease. It restores blood flow to the heart muscle without open-heart surgery.

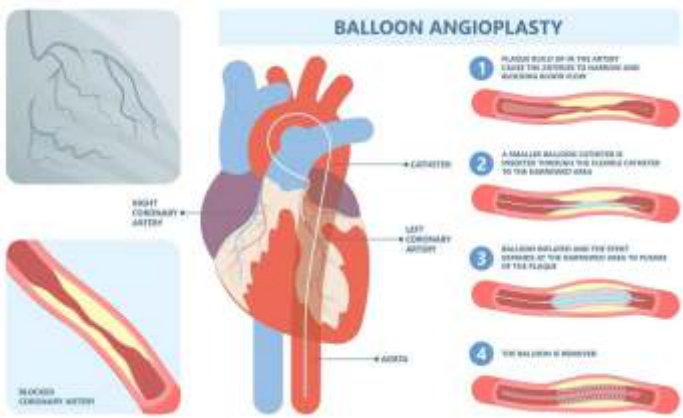
Angioplasty can be done in an emergency setting, such as a heart attack. Or it can be done as elective procedure if your healthcare provider strongly suspects you have heart disease. Angioplasty is also called percutaneous coronary intervention (PCI).

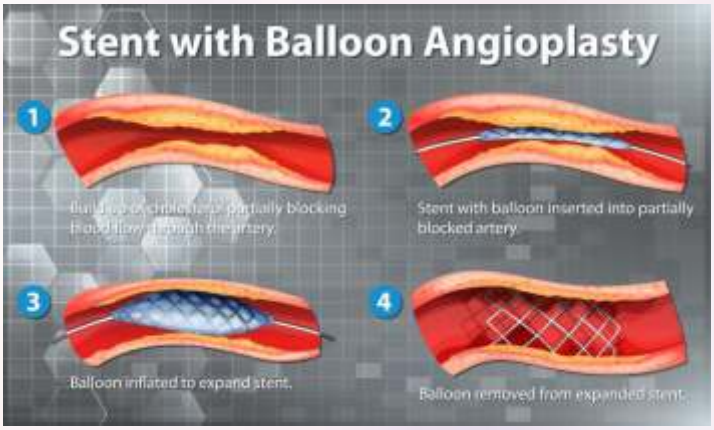
For angioplasty, a long, thin tube (catheter) is put into a blood vessel. It is generally done from wrist artery(radial artery) or groin artery (femoral artery).The catheter is then guided to the blocked coronary artery. The catheter has a tiny balloon at its tip. Once the catheter is in place, the balloon is inflated at the narrowed area of the heart artery. This presses the plaque or blood clot against the sides of the artery. The result is more room for blood flow.

The Cardiologist uses fluoroscopy during the surgery. Fluoroscopy is a special type of X-ray that's like an X-ray "movie." It helps the healthcare provider find the blockages in the heart arteries as a contrast dye moves through the arteries. This is called coronary angiography. So basically, disease or blockages are diagnosed with angiography & blockages are treated with angioplasty.

The healthcare provider may decide that you need another type of procedure. This may include removing the plaque (atherectomy) at the site of the narrowing of the artery. In atherectomy, the healthcare provider may use a catheter with a rotating tip. The plaque is broken up or cut away to open the artery once the catheter reaches the narrowed spot in the artery.

Angioplasty in most case is completed by putting in a stent which is kind of metallic spring of cobalt-chromium. It prevents chances of reblockages which can be upto the tune of 20% with ballooning alone. Stents are basically of two types – Bare metal or Drug coated. Drugs which are used are anti-cancer drugs to further decrease the chances of tissue ingrowth with time. In today's era with advances in various hardware and technology and increased expertise of the operators, it is a very safe and effective , minimally invasive life saving technology done for right indications.





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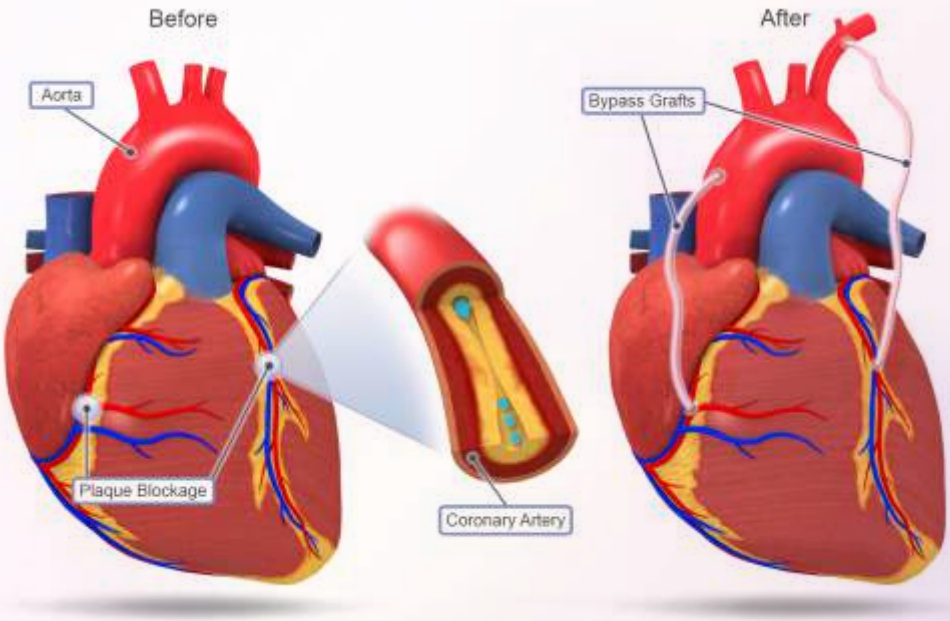
WHAT IS CORONARY ARTERY BYPASS ?

Introduction

Coronary artery disease (CAD) is the narrowing of the coronary arteries. These are the blood vessels that supply oxygen and nutrients to the heart muscle. CAD is caused by a build-up of fatty material within the walls of the arteries. This buildup narrows the inside of the arteries, limiting the supply of oxygen-rich blood to the heart muscle. Coronary artery bypass grafting (CABG) is a vital procedure for treating advanced coronary artery disease (CAD). Understanding CABG techniques and considerations in midlife and postmenopausal women is essential for all, given the high incidence of cardiovascular disease in this demographic region.

What is CABG ?

Coronary artery bypass grafting (CABG) is a major surgical operation where atheromatous blockages in a patient's coronary arteries are bypassed with harvested venous or arterial conduits. The bypass restores blood flow to the ischemic myocardium which, in turn, restores function, viability, and relieves anginal symptoms.



CABG When ?

Coronary artery bypass grafting (CABG) is a major surgical operation where atheromatous blockages in a patient's coronary arteries are bypassed with harvested venous or arterial conduits. The bypass restores blood flow to the ischemic myocardium which, in turn, restores function, viability, and relieves anginal symptoms.

- Left main disease greater than 50%
- Three-vessel coronary artery disease of greater than 70% with or without proximal LAD involvement
- Two-vessel disease: LAD plus one other major artery
- One or more significant stenosis greater than 70% in a patient with significant anginal symptoms despite maximal medical therapy
- One vessel disease greater than 70% in a survivor of sudden cardiac death with ischemia-related ventricular tachycardia

Equipment

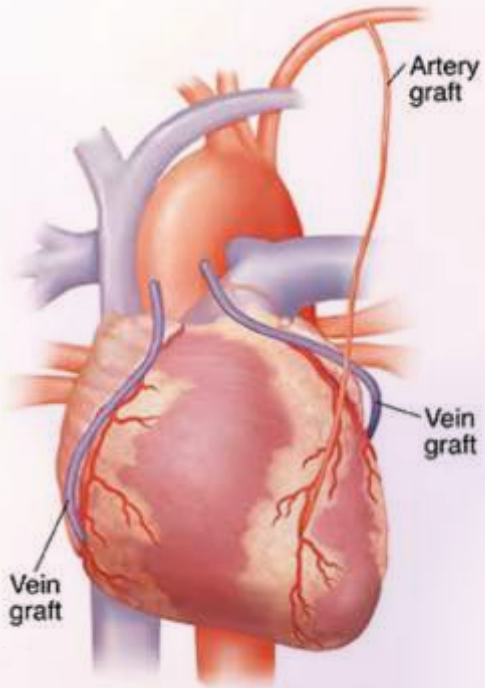
The equipment necessary for this major surgical operation includes those used for general surgical procedures along with many specialized pieces of equipment, including the cardiopulmonary bypass machine with a heater-cooler device to warm and cool the blood.

Personnel

The operation is performed by a specialized cardiovascular surgical team with extensive training and experience with taking care of these complex patients. The team consists of the cardiothoracic surgeon and their assistants, anesthesiologists, nurses, surgical technicians, and perfusionists.

Clinical Significance

CABG is an important major surgical procedure helping prevent major morbidity in a patient's life by relieving anginal symptoms and improving quality of life. Appropriately selected patients receiving CABG have increased survival benefits compared to those receiving medical therapy or PCI alone



Coronary Artery Bypass GraftBradlee J. Bachar; Biagio Manna. Author Information and Affiliations Bradlee J. Bachar1; Biagio Manna2.Affiliations

- *Kaweah Deltah Health Care District*
- *RWJUH/Barnabas Health System Last Update: August 8, 2023.*

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SHOULD WE TAKE ASPIRIN TO PREVENT CVD

Aspirin was widely used as a staple during the 20th century for protection against atherothrombosis while increasing the risk of major bleeding. Although it is widely used to prevent cardiovascular disease, its benefit does not outweigh its risk for primary CVD prevention in large population settings.

Guidelines for Aspirin

Guidelines for prophylactic use of disprin for primary prevention of CVD and stroke are not very clear. Aspirin confers protection against platelet mediated thrombotic events while increasing the bleeding risk. Low dose aspirin has net value in secondary CVD prevention, reducing the risk by 21% in patients with preexisting CVD. While in those without pre existing CVD it yields only modest protection against cardiovascular events (0.4% absolute risk reduction) that does not outweigh the increased risk of major bleeding (0.47% absolute risk increase). So it should be considered to guide aspirin therapy.

Newer Concepts

In contrast to prior studies that enrolled individuals based only upon their CV risk using non specific markers like age, hypertension and diabetes, a new platelet centric approach for primary CVD prevention is proposed now. Individuals with hyper reactive platelets are identified using an aggregometer and then they should be randomised with low dose Aspirin or Placebo. As traditional platelet agonist trial design methods have failed repeatedly to refine the clinical practices because CVD burden is persistent. Thus a new platelet focused approach appears prudent given the centrality of platelets in CVD pathogenesis, thrombosis and hemostasis and successful adoption of biomarkers led approaches in other areas of CVD prevention is required.

AHA (American Heart Association) Recommendation

You should not take daily low dose aspirin with consulting a doctor

If you have had a heart attack or stroke you may be prescribed daily intake of low dose aspirin to prevent help another.

Because of the risk of bleeding, aspirin is never recommend in those who never had a heart attack or stroke except for in certain selected people.

In those above 70 yrs, taking prophylactic Aspirin to prevent a first heart attack or stroke is harmful rather than beneficial.

Risks

Because aspirin thins the blood, it can cause several complications. It should not be taken without consulting health care professional If following conditions exist:

- Aspirin allergy or intolerance
- High risk for gastrointestinal bleeding or hemorrhagic stroke
- Drink alcohol regularly
- Are undergoing any simple medical or dental procedures
- Are over 70 years old

"Aspirin is good for your heart. If you dissolve it on your tongue, it ruins the taste of pizza."

DR CHANDAN KACHRU

Secretary Menopause Society Gurgaon.
Senior Consultant Obs & Gynae Cloudnine Hospital

DOES MENOPAUSE AFFECT LIPID PROFILE ?

After menopause, there is loss of ovarian function. This results in adverse changes in glucose and insulin metabolism, body fat distribution, coagulation, fibrinolysis and vascular endothelial dysfunction . There is also derangement of lipoprotein profile independent of age A number of changes that occur in the lipid profile after menopause are associated with increased cardiovascular disease risk. Lack of estrogen is an essential factor in this mechanism. Apart from maintaining friendly lipid profile, estrogen changes the vascular tone by increasing nitrous oxide production. It stabilizes the endothelial cells, enhances antioxidant effects and alters fibrinolytic protein . All these are cardioprotective mechanisms, which are lost in menopause.

Dyslipidemia is a known risk factor for cardiovascular disease (CVD), and remains the leading cause of morbidity and mortality in women globally. The incidence of dyslipidemia increases with age and its adverse effects are commonly seen during menopause.

There is an increased incidence and prevalence of premature menopause and ever increasing burden of surgical menopause. This has resulted in a woman today spending almost a third of her life in menopause and that too with distressing clinical problems [. It is therefore critical to understand the influence of menopause on lipid profile in order to enhance our ability to identify targets for effective preventive measures.

Menopause is associated with elevations in serum total cholesterol, LDL cholesterol, apolipoproteins, and triglycerides, and decreases in HDL cholesterol (HDL-C). It has also been seen that functional HDL looses its cardioprotective properties in menopause.

Women with history of polycystic ovarian syndrome, premature menopause, early menopause, premature ovarian insufficiency, Diabetes mellitus and familial hypercholesterolemia are at a higher risk of getting cardiovascular diseases. The Framingham study, a longitudinal analysis of 2873 women under the age of 55, found that postmenopausal women experienced 70 cardiovascular events compared to 20 in premenopausal women of the same age group and person-years .

Women who undergo surgical menopause or experience premature ovarian failure and not treated for estrogen deficiency, are characterized by a two-fold risk of coronary artery disease than the women attaining menopause by around 50 years

Lipids and lipoproteins are the established surrogate markers of vascular risks. The desirable levels for fasting lipid profile set by the National Cholesterol Education Programme (NCEP) is total cholesterol below 200 mg/dL, serum triglyceride levels below 150 mg/dL, serum HDL cholesterol levels more than 60 mg/dL and LDL cholesterol level less than 100 mg/dL. Apart from the lipid profile, the total cholesterol/high-density lipoprotein (HDL) cholesterol ratio, and the LDL/HDL cholesterol ratio are also used as an indicators of vascular risk .LDL/HDL ratio more and 3.0 and TC/HDL-C ratio greater than 4.5 indicates average cardiovascular risks in females.

Management of dyslipidaemia for good heart health

The latest lipid-lowering guidelines recommend statins as the first-line treatment to reduce the risk of CVD, regardless of gender and menopausal status. It should be remembered that there are studies suggesting that statin use, especially in high doses, in post-menopausal women may increase the risk of diabates, therefore, the recent recommendations prompt on how to optimally treat lipid disorders in women with metabolic disturbances without increasing the risk of new onset diabetes.

Lifestyles assessment and counselling for menopausal women should be an integral part of health care. Eating habits and proper care for a healthy lifestyle in the menopausal period are very important.

Women should be encouraged to maintain a healthy weight by means of a healthy diet (with five portions of fruit and vegetables per day, using wholegrain, high-fibre foods, cutting down on saturated fats, increasing mono- and polyunsaturated fats and cutting down on salt) and by increasing exercise, aiming for 30 minutes of moderate exercise (brisk walking provides the same benefit as vigorous exercise) at least five days per week. MHT is not recommended as first-line therapy for dyslipidemia or for reducing the risk of cardiovascular disease in menopause.

ACC/American Heart Association guidelines recommend considering a heart scan to assess CAC when a person's risk level is ambiguous or borderline based on standard risk factors. In the U.S. and many other countries, CAC(coronary artery calcium) scoring is most used to determine recommendations for statins for intermediate-risk and asymptomatic patients.

DR HARIRAM

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ESTIMATION OF CVD RISK

Atherosclerotic CVD (ASCVD) affect majority of adult after 60 year of age

ASCVD includes four major areas:

- Coronary Artery Disease - Manifested by Heart Attack & Angina
- Cerebrovascular Disease - Manifested by Stroke & Transient Ischemic Stroke
- Peripheral Artery Disease - Manifested by Pain in leg on walking & Gangrene
- Aortic Aneurysm

General risk can be estimated by counting number of traditional risk factors, (like Hypertension, diabetes, Smoking, Family history of CAD, Chronic kidney disease, Obesity, Cholesterol etc) but more precise estimation of risk for first ASCVD event is required to recommend specific preventive therapy in individual patient.

ASCVD risk evaluation should begin at 20 years of age or at first contact with health care system.

First identify number of traditional risk factors in patient then assess 10 year CVD risk with help of risk calculator.

Patient with low 10-year ASCVD risk (<5%) can be reaassured & encouraged to maintain healthylife style like regular Exercise, Healthy diet-whole grain, Fruits & Vegetable, avoid Sugary drinks & Processed refined food, avoid Smoking, Regular check-ups for Blood pressure, Cholesterol & Diabetes.

Patients with high 10-year CVD risk (>20%) can be started on appropriate preventive therapies in addition to lifestyle changesPatients with intermediate 10-year ASCVD risk can be encouraged for healthy lifestyle changes and / or preventive therapies AND may be considered for additional screening test like coronary artery calcium scoring.

Individual patients ascvd risk is not static but can vary significantly over time so risk factor & ASCVD risk should be assessed regularly.

For patient with low 10-year risk with no change in clinical status, assess ASCVD risk in every four to six years.

Statin therapy is recommended for most patients with 10-year ASCVD risk > 10%

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MENOPAUSE AND GOOD NUTRITION

Basic Dietary Guidelines for Menopause

During menopause, eat a variety of foods to get all the nutrients you need. Since women's diets are often low in iron & calcium, follow these guidelines

Menopause Diet

- Get enough calcium : Eat and drink two to four servings of dairy products and calcium-rich foods a day. Calcium is found in dairy products, fish with bones (such as sardines and canned salmon), broccoli, & legumes. Aim to get 1,200 milligrams per day.
- Pump up your iron : Eat at least three servings of iron-rich foods a day. Iron is found in lean red meat, poultry, fish, eggs, leafy green vegetables, nuts, and enriched grain products. The recommended dietary allowance for iron in older women is 8 milligrams a day.
- Get enough fiber : Help yourself to foods high in fiber, such as whole-grain breads, cereals, pasta, rice, fresh fruits, and vegetables. Most adult women should get about 21 grams of fiber a day.
- Eat fruits & vegetables: Have at least 1 1/2 cups of fruit and 2 cups of vegetables each day.
- Read labels : Use the package label information to help yourself make the best choices for a healthy lifestyle.
- Drink plenty of water : As a general rule, drink eight glasses of water every day. That fulfils the daily requirement for most healthy adults.
- Maintain a healthy weight: If you're overweight, cut down on portion sizes and eat fewer foods that are high in fat. Don't skip meals, though. A registered dietitian or your doctor can help you figure out your ideal body weight.
- Cut back on high-fat foods : Fat should provide 25% to 35% or less of your total daily calories. Also, limit saturated fat to less than 7% of your total daily calories. Saturated fat raises cholesterol and boosts your risk of heart diseases. It's found in fatty meats, whole milk, ice cream, and cheese. Limit cholesterol to 300 milligrams or less per day. And watch out for trans fats, found in vegetable oils, many baked goods, and some margarine. Trans fat also raises cholesterol and increases your risk for heart disease.
- Use sugar and salt in moderation : Too much sodium in the diet is linked to high blood pressure. Also, go easy on smoked, salt-cured, and charbroiled foods -- these foods have high levels of nitrates, which have been linked to cancer.
- Limit alcohol to one or fewer drinks a day.

Foods to Help Menopause Symptoms

Plant-based foods that have isoflavones (plant estrogens) work in the body like a weak form of estrogen. For this reason, soy may help relieve menopause symptoms, although research results are unclear. Some may help lower cholesterol levels and have been suggested to relieve hot flashes and night sweats. Isoflavones can be found in fods such as tofu & soy milk.

Avoid Foods During Menopause?

If you're having hot flashes during menopause, you may find it helps to avoid certain “trigger” foods & drinks, like spicy foods, caffeine, & alcohol

Avoid Foods During Menopause?

Because there is a direct relationship between the lack of estrogen after menopause and the development of osteoporosis, the following supplements, combined with a healthy diet, may help prevent the onset of this conditions:

- **Calcium:** If you think you need to take a supplement to get enough calcium, check with your doctor first. A 2012 study suggests that taking calcium supplements may raise the risk of heart attacks in some people - but the study showed that increasing calcium in the diet through food sources didn’t seem to raise the risk.

- **Vitamin D:** Your body uses vitamin D to absorb calcium. People ages 51 to 70 should get 600 IU each day. Those over 70 should get 800 IU daily. More than 4,000 IU of vitamin D each day is not recommended, because it may harm the kidneys and weaken bones.

MS ARCHANA GUPTA
Yoga Acharya

YOGA AND HEART HEALTH

योग एक ऐसी जीवन शैली दर्शाता है जिससे हार्ट अनुकूलतम अवस्था में जीवन पर्यनत स्वस्थ तथा तनावों और रोगों से भी मुक्त रहे।

आसान अति महत्वपूर्ण हैं, मगर उन्हें सामर्थ्य से अधिक न करें।

आसान

पवनमुक्त आसान से प्रांरभ करें

इस समूह के आसन शरीर के जोड़ों को ढीला और मांसपेशियों को लचीला बनाते हैं, जो व्यक्ति वात रोग गठिया, उच्च रक्तचाप, हृदय रोग से ग्रस्त है, उनके लिए यह आसान अति उत्तम है। यह जोड़ों और शरीर के वाह्य अंगों में व्याप्त ऊर्जा अवरोधों को दूर करने में सहायक होता है।

① 
पादंगुलि नमन और गुल्फ नमन

② 
गुल्फ चक्र

③ 
गुल्फ घुर्णन

④ 
जानु नमन

⑤ 
जानु चक्र

⑥ 
श्रोणि चक्र

⑦ 
अर्ध तितली आसान

⑧ 
पूर्ण तितली आसान

⑨

मुष्टिका बंध

⑩

मणिबंध नमन

⑪

मणिबन्ध चक्र

⑫

कोह्निनमन

⑬

स्कंध चक्र

⑭

ग्रीवा संचालन

⑮

वज्रासन

⑯

शशांक आसन (इस आसन में कुछ मिनट के लिए शीतलीकरण का अभ्यास)

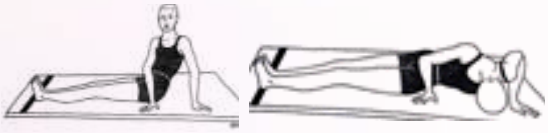
⑰

भुजंग आसान`

⑱

सिद्धासन

⑲



भू नमन आसन

⑳

सेतु आसान

प्राणायाम

प्राणायाम से विक्षिप्त मन शांत होता है। इससे उत्तेजित स्नायुओं का शीतलीकरण तथा अनियमित हृदय गति का नियमन होता है। हृदय के लिए महत्वपूर्ण प्राणायाम नाड़ी शोधन तथा उज्जायी है। अभ्यास में कुंभक वर्जित है। श्वास शांत, ध्वनि रहित व प्राकृतिक होनी चाहिए। श्वाश प्रश्वाश का पूरी सजकता से अवलोकन करने का प्रयास करें, श्वाश का अवलोकन मन का अवलोकन है। इस साधारण प्रक्रिया से फौरन ही तनाव व चिंता से मुक्ति की अनुभूति होने लगती है। ऑक्सीकरण की प्रक्रिया सुचारु होने से हृदय को लाभ प्राप्त होता है, और तेजी से नए टिशु बनने लगते हैं। 10 मिनट नाड़ी शोधन व उज्जायी अनुशंसित है

मुद्रा

यह मुद्रा प्राण के प्रवाह को हाथों से हृदय की ओर ले जाती है। इससे हृदय की प्राण शक्ति में सुधार होता है।

योगनिद्रा

योग निद्रा का पूर्ण अभ्यास दिन में एक बार अवश्य करें।

ध्यान

हृदय रोगियों को ध्यान एक नियमबद्ध अभ्यास के रूप में नहीं वरन एक आनंददायी कार्य कलाप के रूप में सीखना चाहिए। यह अभ्यास असुरक्षा तथा चिन्ताओ के प्रति निश्चिन्तता का भाव पैदा करते हैं। यह अभ्यास हृदय, मस्तिष्क और भावनाओं में कहरढाने वाले तनावों को शांत करते हैं।

षट क्रियाएँ

जलनेति एक आदर्श अभ्यास है। इसे प्रतिदिन प्रातः करें। इसके पश्चात भस्त्रिका ना करें, ना ही नासिक को सुखाने के लिए श्वाश पर जोर डालें।

भोजन

भोजन नियम पूर्वक हल्का होना चाहिए। भोजन का समय निश्चित हो, मुख्य भोजन के बीच में कुछ भी खाते रहने की आदत को जीवन भर के लिए त्याग दें। संध्या का भोजन संध्या 7:00 बजे से पहले ही कर ले। कब्ज नहीं होनी चाहिए। शौच के समय ज्यादा जोर लगाने से भी हृदय पर जोर पड़ता है, जोर लगाने से बचना चाहिए।

व्यसन

मद्यपान, धूम्रपान और तंबाकू सेवन हृदय रोगियों के लिए जहर है।

DR ARTI GUPTA

M.S. Obstetrics and Gynaecology

FICOG, FIMS, CIMP

दिल तो बस दिल है

दिल के क्या कहने

दिल से चलाते है जहां अपना

दिल से ही चलती है जिंदगी अपनी

गर जीना है तो रखो यकीं हमको भागना है,वर्जिश है करनी

मुंह पर लगाम लगानी है जरूरी

ना पास्ता, न बर्गर, न मिठाई खानी है

नियंत्रित करें शुगर और बी पी

लिपिड का रखे ख्याल

खा खा कर न बने मिस ओवर वेट

जाना आना है नियति हाथ

जो गर कर सको तो करो

डगर निडर जीवन की

खुशियां अपना घर हो

दिल दिमाग दुरस्त हों

खुद को खुदी कर बुलंद

कि हर सफर आसान हो

दोस्ती एवं प्यार हमारी शान हो

जीए तो जिंदादिली से

जाएं तो जिंदादिल

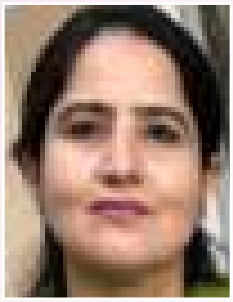
ये दिल ए आरजू है सनम

सबको अपना बनाए जरूर

जाएं तो तुम्हे रुलाएं जरूर

Thursday Quiz (Club 35 plus)
Boojho to Jaanen

9th May, 23rd May & 13th June 2024



Gurpreet
Amritsar

Neena Saxena
Aligarh

Ruchi Sadana
Ahemdabad

Shipra Kaushal
Firozabad

Leeza Aggarwal
Patiala

Lavanya
Puducherry

Jaya Rathore
Jaipur

Kamlayen
Madurai

Sejal Desani
Rajkot

Madhuri Gangude
Vadodara

Sudeshna Basu
Varanasi

Meenu Gupta
Agra

Pooja Dalmia
Gurgaon

Shashibala

Sumita Mishra
Lucknow

Freny Vora
Rajkot

Thursday Quiz (Club 35 plus)
Boojho to Jaanen

9th May, 23rd May & 13th June 2024

Maya Patel
Surat

Parul Patel
Vadodara

Rekha Romi
Varanasi

Sonal
Agra

Neeta Shah
Bharaunch

Seema Grover
Jaipur

Shiji
Lucknow

Kalpana Muthuraj
Puducherry

Neha Seth
Rajkot

Bina Parikh
Surat

Parul
Vadodara

Rekha Romi
Varanasi

Ratna Bhatiya
Jabalpur

Tilak
Vijaywada


Be your own
heart hero!!
Art By
Diksha Agarwal