

NHI Dialogue



Quarterly Health Magazine of Cardio Diabetes Research Society

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Are Indians at Higher Risk of Coronary Artery Disease?



Editor in Chief : V. K. Gujral
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Editorial Voice

Dear Friends!

Hope you had a healthy and joyful winters!

This issue marks the 10th year of your favourite NHI Dialogue. We bring you a series of pages from two books, Cheeni Kum & Sugar Cure in coming issues. The News from the world of Heart & Diabetes will now be relevant for both doctors and patients. You can now read this magazine at www.diabetesheartcare.com also. Please do continue to encourage us by your support.

Hoping to raise your hope

Yours'

Dr. Vinod K Gujral

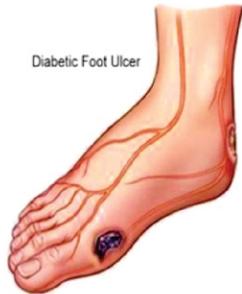
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Challenges of Caring For Diabetic Foot Ulcers (DFU)

In Resource-Poor Settings :

Foot ulceration is a common occurrence in diabetes worldwide. The burden of diabetic foot ulceration is heaviest in the resource-poor parts of the world where the incidence is high but sophisticated and efficient diagnostic, therapeutic and rehabilitative facilities are sparse. Foot ulceration commonly follows minor trauma to the foot with pre-existing neuropathy and ischaemic disease. Superimposed infections may cause the progression of diabetic ulcers to gangrene requiring limb amputation. The care of diabetic foot ulcers in economically disadvantaged parts of the world is expensive. Physical, emotional, and social disturbances associated with diabetic foot ulcers are clinically significant.



Causes and Risk Factors :

- Poor blood sugar control is highly associated with neuropathic ulcers.
- High cholesterol and High BP are significantly associated with ischaemic ulcers.
- The triad of neuropathy, foot deformities and minor foot trauma
- Bacterial infections have been associated with 52% to 97% of DFU in parts of the developing world.
- Smoking is a contributory factor as a result of vascular wall thickening, reduction in blood circulation and ischaemic changes in the affected neurons. The resultant effect is also loss of sensation and increased predisposition to injuries.
- High plantar pressure from inappropriate or tight footwear
- Peripheral vascular disease

Wagner Method (29)		The University of Texas Method (30)	
Grade	Details	Grade	Details
0	No open foot lesion	0	Presence of pre-ulcer or post-ulcer epithelization
1	Presence of superficial ulcer, partial or full-thickness	1	Superficial ulcer not penetrating tendon, bone or joint
2	Ulcer extends to ligaments, tendon, joint capsule or deep fascia without abscess or osteomyelitis	2	Ulcer penetrating through to tendon or capsule
3	Presence of deep ulcer with abscess, osteomyelitis or joint sepsis	3	Ulcer penetrating to bone or joint
4	Gangrene localized to the forefoot or heel	A	Non-infected and non-ischaemic ulcer
5	Extensive gangrene	B	Infection present
		C	Ischaemia present
		D	Both infection and ischaemia are present

KEY : *Grades 0 to 3 are further sub-classified as A, B, C or D.

Controlling your blood pressure through lifestyle

- Dr. Vinod K. Gujral, Sr. Diabetes Specialist, National Heart Institute



What does my lifestyle have to do with my blood pressure? — The things you do and the foods you eat have a big effect on your blood pressure and your overall health.

Following the right lifestyle can :

- Lower your blood pressure or keep you from getting high blood pressure in the first place.
- Reduce your need for blood pressure medicines.
- Make medicines for high blood pressure work better, if you do take them.
- Lower the chances that you'll have a heart attack or stroke, or develop kidney disease.

Which lifestyle choices will help lower my blood pressure? — Here's what you can do :

- Lose weight (if you are overweight).
- Choose a diet rich in fruits, vegetables, and low-fat dairy products, and low in meats, sweets, and refined grains.
- Eat less salt (sodium).
- Do something active for at least 30 minutes a day on most days of the week.
- Limit the amount of alcohol you drink.

If you have high blood pressure, it's also very important to quit smoking (if you

smoke). Quitting smoking might not bring your blood pressure down. But it will lower the chances that you'll have a heart attack or stroke, and it will help you feel better and live longer.

Start low and go slow — The changes listed above might sound like a lot, but don't worry. You don't have to change everything all at once. The key to improving your lifestyle is to “start low and go slow.” Choose 1 small, specific thing to change and try doing it for a while. If it works for you, keep doing it until it becomes a habit. If it doesn't, don't give up. Choose something else to change and see how that goes.

Let's say, for example, that you would like to improve your diet. If you're the type of person who eats cheeseburgers and French fries all the time, you can't switch to eating just salads from one day to the next. When people try to make changes like that, they often fail. Then they feel frustrated and tend to give up. So instead of trying to change everything about your diet in 1 day, change 1 or 2 small things about your diet and give yourself time to get used to those changes. For instance, keep the cheeseburger but give up the French fries. Or eat the same things but cut your portions in half.

As you find things that you are able to change and stick with, keep adding new changes. In time, you will see that you can actually change a lot. You just have to get used to the changes slowly.

Lose weight — When people think about losing weight, they sometimes make it more complicated than it really is. To lose weight, you have to either eat less or move more. If you do both of those things, it's even better. But there is no single weight-loss diet or activity that's better than any other. When it comes to weight loss, the most effective plan is the one that you'll stick with.

Improve your diet — There is no single diet that is right for everyone. **But in general, a healthy diet can include :**

- Lots of fruits, vegetables, and whole grains.
- Some beans, peas, lentils, chickpeas, and similar foods.
- Some nuts, such as walnuts, almonds, and peanuts.
- Fat-free or low-fat milk and milk products
- Some fish.

To have a healthy diet, it's also important to limit or avoid sugar, sweets, meats, and refined grains. (Refined grains are found in white bread, white rice, most forms of pasta, and most packaged “snack” foods.)

Reduce salt — Many people think that eating a low-sodium diet means avoiding the salt shaker and not adding salt when cooking. The truth is, not adding salt at the table or when you cook will only help a little. Almost all of the sodium you eat is already in the food you buy at the grocery store or at restaurants (figure 1).

The most important thing you can do to cut down on sodium is to eat less processed food. That means that you should avoid most foods that are sold in cans, boxes, jars, and bags. You should also eat in restaurants less often.

To reduce the amount of sodium you get, buy fresh or fresh-frozen fruits, vegetables, and meats. (Fresh-frozen foods have had nothing added to them before freezing). Then you can make meals at home, from scratch, with these ingredients.

As with the other changes, don't try to cut out salt all at once. Instead, choose 1 or 2 foods that have a lot of sodium and try to replace them with low-sodium choices. When you get used to those low-sodium options, find another food or 2 to change. Then keep going, until all the foods you eat are sodium-free or low in sodium.

Become more active — If you want to be more active, you don't have to go to the

gym or get all sweaty. It is possible to increase your activity level while doing everyday things you enjoy. Walking, gardening, and dancing are just a few of the things that you might try. As with all the other changes, the key is not to do too much too fast. If you don't do any activity now, start by walking for just a few minutes every other day. Do that for a few weeks. If you stick with it, try doing it for longer. But if you find that you don't like walking, try a different activity.

Drink less alcohol — If you are a woman, do not have more than 1 “standard drink” of alcohol a day. If you are a man, do not have more than 2. A “standard drink” is:

- A can or bottle that has 12 ounces of beer.
- A glass that has 5 ounces of wine.
- A shot that has 1.5 ounces of whiskey.

Where should I start? — If you want to improve your lifestyle, start by making the changes that you think would be easiest for

Love
yourself
enough
to live
a healthy
lifestyle.

you. If you used to exercise and just got out of the habit, maybe it would be easy for you to start exercising again. Or if you actually like cooking meals from scratch, maybe the first

thing you should focus on is eating home-cooked meals that are low in sodium.

Whatever you tackle first, choose specific, realistic goals, and give yourself a deadline. For example, do not decide that you are going to “exercise more.” Instead, decide that you are going to walk for 10 minutes on Monday, Wednesday, and Friday, and that you are going to do this for the next 2 weeks.

When lifestyle changes are too general, people have a hard time following through.

Now go. You can do it!



Foods High in Uric Acid



Studies have shown that foods high in uric acid play a major role in the development and aggravation

of diseases such as gout. In conjunction with a healthy lifestyle and changes in diet, it can actually be easier to manage than many people believe, as long as the sufferer is willing to make some significant changes in their eating habits.

Gout is a painful disease that is most common in men, especially older men, but can also affect women. It is caused by a condition called hyperuricemia, which means that there is actually too much uric acid in the blood. While uric acid is actually a waste product left over from metabolism of chemical compounds called purines, it can also be found in some foods and alcohol.

Diets to reduce uric acid are extremely helpful in lowering levels of uric acid in the body, and will usually involve reducing or cutting out foods that have high levels of purines.

Normally, uric acid is eliminated from the body by the kidneys and a bit of hyperuricemia usually does very little harm. In fact, most people with high levels of uric acid in the blood never develop gout. However, some people are more sensitive to high levels of uric acid, and their bodies will form crystals that accumulate in the joints and cause painful gout symptoms.

The main goals of treatment for gout are relieving the chronic pain that comes with this disease as well as prevention of future gout attacks. Left untreated, it can also lead to long term problems like joint destruction and, ultimately, kidney damage. Diets to reduce uric acid also

benefit gout sufferers by helping them lose weight, which has also been shown to help lower concentrations of uric acid in the blood.

Foods containing uric acid and the compounds that metabolize into uric acid include most animal meats, such as beef, pork and seafood. ***Poultry and ham, the "white meats," can have some degree of purine content and should be eaten very sparingly, but they are not as detrimental as the "red meats."*** Bacon, however, is very high in purines due to the processing used to make it ready for human consumption and should be avoided. ***Alcohol and breads which contain yeast are also foods high in uric acid that should be kept out of the diet.***

Black cherry juice, also known as sour cherry or bitter cherry, is also being used in great quantities to help relieve the symptoms of gout in conjunction with diets to reduce uric acid. Celery seed extract and bromelain are some popular alternative medicine remedies that have been used as natural anti-inflammatories and have been well received by those who suffer chronic inflammation. ***Adding eicosapentaenoic acid (EPA) and folic acid to the diet can also assist in reducing inflammation in gout episodes.***

By eliminating some foods high in uric acid from the diet, many gout sufferers have found some measure of relief from their pain and taken back control over their bodies that they feel had been taken away from them. Diets to reduce uric acid are also quite beneficial in conjunction with other natural therapies such as heat therapy and acupuncture, and many people are reporting a definite decrease in pain and other symptoms simply by making a few changes to their diet and lifestyle.

Are Indians at Higher Risk of Coronary Artery Disease?

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*Consultant Cardiac Surgeon
**C. E. O. & Chief Cardiac Surgeon
National Heart Institute, New Delhi



Reams of data have been published about the scourge of Coronary Artery Disease (CAD) in India. This disorder has never been high on the list of public health priorities of the government owing to the understandably greater risk posed by infectious diseases. But recent scientific evidence shows alarming findings; the rates of CAD among Indians are a staggering 50-400% times that of any other ethnic group. While prevalence of CAD in the West has gone down by half in the last three decades, the rates in India have doubled with no signs of abating. The average age at which the first heart attack occurs has come down by 20 years in Indians. The first heart attack among Indian men occurred in 50% under the age of 50 and in 25% under the age of 40. The severity of the disease also is higher in Indians, with a greater prevalence of all three coronary arteries being involved than in

Western populations. Why are Indians so susceptible to developing this disease when in fact, the conventional risk factors for CAD like hypertension, hypercholesterolemia, obesity and smoking are lower in incidence in Indians than westerners? The answer to this question lies both within us and our immediate environment.

Indians today are undergoing a major socio-economic & cultural shift. The policies of economic liberalization have exposed us to a plethora of lifestyle and dietary changes in the last two decades. A greater proportion of people are now urban-dwellers, with a corresponding decrease in physical activity, more consumption of saturated fats, refined sugars and carbohydrates. Now let us try and understand the mechanisms that are responsible for the present state of affairs. It has long been known that Indians as an ethnic group are genetically predisposed to developing CAD.

This is borne out by these interesting “PARADOXES”:

The Japanese paradox : despite an incidence of 74% of smoking, Japan has a five-fold lower CAD rate than the USA. Despite its economic might and urbanization, Japan has reduced its CAD rate by 60%. The factors contributing are a high level of HDL (the “good cholesterol”) and low levels of

triglycerides (the “ugly” cholesterol), along with a high consumption of fish.

The Chinese paradox : the new economic powerhouse and a high incidence of smoking and hypertension have not prevented a low incidence of CAD and mortality therefrom. Here too, the favorable lipid profile is largely responsible.

The Asian Indian paradox : Indian immigrants in the US have a 4-fold higher incidence of CAD than their American counterparts despite a lower prevalence of conventional risk factors as noted earlier.

Our genetic baggage: Newer unconventional risk factors have emerged as a result of scientific research that put us at higher risk as far as CAD is concerned. **These are :-**

The “deadly” cholesterol - This is the name given to Lipoprotein (a), a variant of LDL (the “bad” cholesterol). It is a powerful predictor of development of cholesterol plaque and clot formation in the coronary arteries. In fact, a high childhood level is a major marker of future premature CAD development. Shockingly, levels of this marker have been found to be higher in Indian newborns than their Chinese counterparts. This has also been found to exert a synergistic effect with other risk factors like smoking, obesity, diabetes, etc in the development of CAD.

Homocysteine - This molecule has recently been identified as an independent risk factor for CAD in Indians, being higher than in white populations. A very small rise in its levels is associated with an exponential rise in CAD incidence.

Other emerging biochemical risk factors like *apolipoprotein B*, *Plasminogen Activator Inhibitor*, *Fibrinogen* and *c-Reactive Protein* have been detected in

higher levels in Indians than in other ethnic groups.

All of the above goes to show that we are rendered susceptible to early development of more severe CAD by a deadly combo of genetic and environmental factors. So the question arises: what can we do to stem the rot? What measures can and should be adopted at individual and national levels to prevent or at least, slow the progression of this pandemic?

A rough template can be as follows :

- 1. Early lifestyle modification :** increase of physical activity, discouraging childhood obesity, dietary changes and cessation of tobacco usage form the pillars of such a program.
- 2. Dietary modification :** the National Cholesterol Education Program (NCEP) III recommends >50% of total calorie intake from carbohydrates, <20% from protein and 25-35% from fats. Any diet containing more energy than needed or used will lead to obesity and elevated cholesterol levels.
- 3. Saturated fat :** this is a major source of elevated cholesterol and triglycerides. A glaring example is that of Kerala, which has the highest consumption of coconut oil in the country, as well as the highest incidence of CAD. Coconut oil is a major source of saturated fat. Hence it is recommended that the consumption of these products be limited to just one tablespoon per day. Other sources of saturated fats include dairy products, butter, red meat, etc.
- 4. Mono-and Poly unsaturated fatty acids (MUFA and PUFA) :** increasing the proportion of these fatty acids lowers the proportion of LDL. Nuts,

olive oil and Canola oil are a rich source of these.

5. **Reuse of oil for deep frying** : this is a common but dangerous practice, especially in India's famed street food stalls. It leads to formation of more saturated fatty acids and a tendency to cholesterol plaque formation.
6. **Different screening protocols** : since Indians have a lower incidence of conventional risk factors (except diabetes) as compared with Whites, it follows that specific screening for unconventional risk factors like Lipoprotein (a) and homocysteinemia should be followed for Indians, especially in those at high risk for

developing CAD for example, those with a strong family history of the disease.

To conclude, the present scenario calls for immediate efforts on the part of individuals, society & government as a whole to adequately screen individuals at risk for CAD, especially with stress on newer risk factors and initiate aggressive preventive measures as outlined above with a view to offset the potential time bomb of CAD that will be upon us in the near future. However, it goes without saying that rather than waiting for the government to get things done, it is in our own interest to adapt sensible, pragmatic and prudent lifestyle and behavioral changes in ourselves and our offsprings.

NEWS YOU CAN USE

Vitamin D deficiency increases type 2 diabetes risk!

Vitamin D could play a significant role in preventing the development of type 2 diabetes and heart disease, according to new research.

The effects of vitamin D deficiency were studied in mice at Washington University School of Medicine, United States.

The researchers deactivated vitamin D receptors in the mice and observed there was an increased likelihood of inflammation being induced that was linked to type 2 diabetes and heart disease.

However, this inflammation decreased when scientists reactivated the receptors and allowed the mice to receive vitamin D, reversing the disease symptoms.

Aside from inflammation, the generation of excess glucose, insulin resistance and accumulation of plaque in blood vessels was also noted when the mice could not receive vitamin D.

Monocytes :

When these receptors were turned off, inflammation in the liver and artery walls was induced due to blood cells sticking together.

This led to - a type of white blood cell - carrying cholesterol and other harmful substances in blood vessel walls.

“The monocytes were laden with fat in the absence of vitamin D receptor. And they carried that fat into the artery, so that’s a new understanding of another way fat may get into blood vessel walls in patients who are vitamin D deficient,”

said Dr. Carlos Bernal-Mizrachi, senior investigator and associate professor of medicine and of cell biology and physiology at Washington.

The researchers now hope that research will show vitamin D supplementation in people who are vitamin D deficient could treat type 2 diabetes and heart disease.

“In our study, inactivation of the vitamin D receptor induced diabetes and atherosclerosis, so normalizing vitamin D levels may have the opposite effect,” concluded Bernal-Mizrachi.

The results of this study were published in an article by Science Daily.

Ambient air pollution linked to type 1 diabetes development in children. -Tue, 24 Mar 2015

An increased risk of type 1 diabetes in children is linked to traffic-related air pollution, a study suggests.

Researchers at the Institute for Diabetes Research at the Helmholtz Centre, Germany found that high levels of dust pollution could affect the development of type 1 diabetes.

Data was analysed from 671 children with type 1 diabetes who were diagnosed between April 2009 and May 2013, with blood samples taken at diagnosis to test for certain inflammatory markers.

The children exposed to high levels of ambient air pollution from residential environments developed type 1 diabetes three years earlier, on average, than children from areas with low pollution levels.

The fine dust particles and nitrogen dioxide that the children were exposed to are categorised as traffic-related pollutants.

“Our results indicate that exposure to traffic-related pollutants accelerates the development of type 1 diabetes,” the researchers wrote. “Our results were independent from the level of urbanisation in the areas analysed.”

Other factors taken into account by the Helmholtz Centre team included the BMI of the children and their family history of diabetes. They found, however, that their results did not apply to very young children.

Air pollution has been classified by the World Health Organisation as the largest environmental health risk, with an estimated seven million deaths per year recorded due to air pollution.

Stem cell treatment could reverse type 2 diabetes. - Fri, 20 Mar 2015

Stem cell treatment could reverse type 2 diabetes, according to new research.

The study, published in Stem Cell Reports and conducted by scientists at the University of British Columbia and BetaLogics, is the first to indicate the therapeutic potential of stem cell treatment for type 2 diabetes. Previous research has indicated its potential in treating type 1 diabetes.

The study, which was conducted on mice, used a combination of specially-designed stem cells and type 2 diabetes drugs. The mice were given a high-calorie diet and type 2 diabetes. The researchers then implanted the mice with cells similar to those of a pancreas, which had been grown from humans.

The mice were separated into two groups. The first was given type 2 diabetes drugs in combination with the stem cells, and the second was given

only type 2 diabetes drugs, without the stem cells.

The first group, those who were implanted with stem cells and given diabetes drugs, became as glucose-tolerant as a healthy group of mice fed a balanced diet. This means that their blood glucose levels did not spike after a meal. The second group of mice with type 2 diabetes did not see a similar improvement.

The first group of diabetic mice also returned to a healthy weight, around the same weight as the healthy mice that were fed a balanced diet.

Timothy Kieffer, professor of cellular and physiological sciences, said: “Being able to reduce spikes in blood sugar is important because evidence suggests it’s those spikes that do a lot of the damage - increasing risks for blindness, heart attack, and kidney failure.

“Their weight loss was intriguing, because some of the common diabetes therapies often lead to weight gain.

“We need to do more studies to understand how the cell transplants lead to weight loss.”

Study explains why obese men more likely to develop type 2 diabetes than women. -Wed, 18 Mar 2015

Researchers have discovered evidence that obese men are more likely to develop type 2 diabetes than women.

Scientists at McMaster University, Canada believe this difference is related to the activity of a protein in the muscle, known as PTEN. They observed that PTEN reacts differently between men and women.

“In our study, women’s muscle appeared more efficient in neutralizing this protein, and this allows insulin to work better to move sugar from circulation to

muscle,” explained lead author Dr. M. Constantine Samaan.

When it is active, PTEN prevents insulin from signalling properly in the muscle. This reduces the amount of sugar that a muscle uses, which increases the risk of type 2 diabetes due to “muscle insulin resistance”.

Obese men are significantly more likely to develop type 2 diabetes than women, as other studies have showed, but this is the first study that explains why women maintain insulin sensitivity compared to men.

“We conclude that the downregulation of muscle PTEN may explain the retention of insulin sensitivity with higher adiposity in women compared to men,” the researchers wrote.

The team will now be hoping their findings can lead to assessing how PTEN is regulated in different cells and targeting treatment to improve muscle responses to insulin.

The findings of the study were published in the journal *Scientific Report*.

Hemoglobin A1C (HbA1c)

What is hemoglobin A1C? — Hemoglobin A1C is a blood test that shows what your average blood sugar level has been for the past 2 to 3 months. Doctors use this test for 2 reasons:

- *To see whether a person has diabetes.*
- *To see whether diabetes treatment is working the right way* Other names for hemoglobin A1C are “glycated hemoglobin,” “HbA1C,” or just “A1C.”

What should my A1C numbers be? — That depends on why you have the test.

- **When checking for diabetes** — If you had an A1C test to see if you have diabetes, your A1C should be 6 or less.
- If your A1C is 6.5 or higher, it probably means you have diabetes, but you should have the test done again to be sure
- If your A1C is between 5.7 and 6.4, you are at risk for getting diabetes. You should probably start doing things that can help prevent diabetes. For example, you should become more active and lose weight (if you are overweight).
- **When checking how treatment is working** — If you already know you

have diabetes, and you had an A1C test to see how well controlled your blood sugar is, your A1C should probably be 7 or less. But you need to check with your doctor on what your level should be. Not everyone with diabetes is the same. Some people need to aim for different A1C levels than others.

How often should I have an A1C test? — That depends on whether you have diabetes and on what your last A1C test showed.

- If you had an A1C test to check for diabetes and your A1C was less than 5.7 (meaning you do NOT have diabetes), you should have A1C tests done every 1 year
- If you had an A1C test to check for diabetes and your A1C was between 5.7 and 6.4 (meaning you do not have diabetes but are at risk for it), you should have A1C tests done every 6 months.
- If you do have diabetes and your blood sugar is well controlled, you should have A1C tests every 6 months.
- If you have diabetes and you recently changed treatment plans or you are having trouble controlling your blood sugar, you should have A1C tests every 3 months.

High blood pressure!



What is high blood pressure? — High blood pressure is a condition that puts you at risk for heart attack, stroke, and kidney disease. It does not usually cause symptoms. But it can be serious.

When your doctor tells you your blood pressure, he or she will say two numbers. For instance, your doctor or nurse might say that your blood pressure is “140 over 90.” The top number is the pressure inside your arteries when your heart is contracting. The bottom number is the pressure inside your arteries when your heart is relaxed.

This table shows how doctors and nurses define high and normal blood pressure. “**Prehypertension**” is a term doctors use as a warning. People with prehypertension do not yet have high blood pressure. But their blood pressure is not as low as it should be for good health.

Category	*SBP(mmHg)	**DBP(mmHg)
Optimal	<120	<80
Normal	<130	<85
Borderline	130-139	85-89
Hypertension		
Stage 1	140-159	90-99
Stage 2	160-179	100-109
Stage 3	180	110

How can I lower my blood pressure? —

If your doctor or nurse has prescribed blood pressure medicine, the most important thing you can do is to take it. If it causes side effects, do not just stop taking it. Instead, talk to your doctor about the problems it causes. He or she may be able to lower your dose or switch you to another medicine. If cost is a problem, mention that too. He or she may be able to put you on a less expensive medicine. Taking your blood pressure medicine can keep you from having a heart attack or stroke, and it can save your life!

Can I do anything on my own? — You have a lot of control over your blood pressure.

To lower it:

- *Lose weight (if you are overweight).*
- *Choose a diet low in fat and rich in fruits, vegetables, and low-fat dairy products.*
- *Reduce the amount of salt you eat.*
- *Do something active for at least 30 minutes a day on most days of the week.*
- *Cut down on alcohol (if you drink more than 2 alcoholic drinks per day).*

It's also a good idea to get a home blood pressure meter. People who check their own blood pressure at home do better at keeping it low and can sometimes even reduce the amount of medicine they take.



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CARDIO DIABETES RESEARCH SOCIETY

(Registered under Societies Act XXI of 1860 vide. No. S-52780 (2005))

Secretariat : National Heart Institute, 49-50 Community Centre, East of Kailash

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(A Voluntary Organisation For Prevention of Heart, Diabetes & Lifestyle Diseases)

- Aims & Objectives :**
- To create awareness in masses about heart problems, specially in diabetes patients.
 - To evaluate diabetes patients who are at high risk of heart diseases.
 - To organize Free / affordable treatment for Diabetes & Heart Ailments.
 - Health Education to General Public.
 - Continuing Medical Education to Practicing Doctors.
 - Free Clinics for Heart & Diabetes.
 - Concessions for Tests & treatment at various Organizations & Hospitals.
 - Regular Magazine for the General Public.
 - Organise Camps for Screening of Diabetes & Heart Diseases.

Founder Members

Dr. A. K. Jhingan : Chairman
Dr. V. K. Gujral : President
Dr. Vinod Sharma : Gen. Secretary
Dr. R. L. Passi : Treasurer

Dr. O. P. Yadava : Chairman Scientific
Dr. Shikha Sharma : Chairperson Nutrition
Dr. Pankaj Aneja : Vice President
Dr. B. M. Makkar : Chairman Obesity Control