A Textbook of CARDIOLOGY by Indian Naturopaths

From Heart Disease to Heart Health

Dr. Rajan Maurya | Dr. Vijay Raghavan

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Writing a book is never a journey taken alone. Behind every page are the people, experiences, teachers, patients, colleagues, friends, and family members who contribute in ways both seen and unseen. First and foremost, I express my deepest gratitude to ***God****, whose grace, strength, and guidance have given me the courage to pursue my purpose in healthcare and to continue learning throughout my journey.*

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My special gratitude goes to the ***patients and individuals who have trusted me with their health journeys****. Every consultation, every challenge, and every story has taught me something valuable. Their experiences have strengthened my belief that healthcare should look beyond*

symptoms and consider the individual as a whole—body, mind, lifestyle, and environment.

*I am also thankful to my **co-author and holistic health colleagues**, whose knowledge, experience, and perspective have enriched this work and helped bring together different approaches to wellness.*

This book is also dedicated to every person who is struggling with heart-related health concerns and searching for a better understanding of their health. My hope is that these pages encourage readers to become more aware of their lifestyle, take preventive steps, and work responsibly with qualified healthcare professionals.

Finally, I am grateful to everyone who contributed directly or indirectly to the creation of this book. Your encouragement, suggestions, support, and belief in this vision have been invaluable.

With gratitude and hope,

Dr. Rajan Maurya
Author, A Textbook of Cardiology by Indian Naturopaths

Special Thanks & Dedication

With Special Thanks and Gratitude to

Dr. Vijay Raghavan, MBBS, MD

Co-Author • Guide • Mentor • Inspiration

*This book is dedicated with profound gratitude to **Dr. Vijay Raghavan, MBBS, MD**, whose guidance, mentorship, experience, and vision have been an invaluable part of this journey.*

His commitment to healthcare, his pursuit of deeper understanding of chronic diseases, and his vision of bringing together clinical knowledge with naturopathic and lifestyle-based approaches have been a constant source of inspiration.

Throughout the development of A Textbook of Cardiology by Indian Naturopaths Naturopaths, Dr. Raghavan has generously shared his knowledge, offered valuable guidance, encouraged critical thinking, and helped shape the direction and purpose of this work. His mentorship has provided not only professional guidance but also the confidence to explore new perspectives in natural and preventive healthcare.

*More than a co-author and mentor, he has been a **teacher, guide, and source of inspiration**—encouraging a commitment to learning, responsible health education, and compassionate care.*

A Tribute of Gratitude

This book is a humble expression of respect and gratitude for his guidance and contribution.

With heartfelt thanks for believing in the vision, supporting the journey, and inspiring us to continue seeking better ways to understand and promote health.

Dedicated with respect, gratitude, and admiration to Dr. Vijay Raghavan, MBBS, MD.

About the author

Dr. Rajan Maurya

Author|Naturopathy Physician| Holistic Health Consultant

Dr. Rajan Maurya is a Naturopathy & Yogic Sciences professional, Holistic Health Consultant, and a passionate advocate of preventive and lifestyle-based healthcare.

With a Bachelor's degree in Naturopathy & Yogic Sciences (BNYS) and professional experience across India and the Middle East, Dr. Maurya has dedicated his work to understanding the deeper relationship between nutrition, lifestyle, physical activity, stress, metabolic health, and overall well-being.

His philosophy is built on a simple yet powerful principle: the human body has an extraordinary capacity to heal and restore balance when given the right environment, nourishment, and care. Naturopathy, in his view, is not merely about treating symptoms—it is about understanding the person as a whole and addressing the everyday factors that influence health.

Dr. Maurya has a particular interest in heart health, nutrition, lifestyle modification, preventive healthcare, and holistic wellness. His approach combines traditional principles of naturopathy with contemporary health

knowledge, with an emphasis on practical and sustainable changes that can become part of everyday life.

In A Textbook of Cardiology by Indian Naturopaths, Dr. Maurya explores the heart not simply as an organ, but as part of a larger system influenced by food, movement, stress, sleep, metabolism, habits, and the environment in which we live. Through this book, he seeks to help readers understand cardiovascular health in a simple, meaningful, and practical way—and to encourage them to become more conscious participants in their own health journey.

His purpose as an author is not to promise miraculous cures, but to educate, inspire, and empower. He believes that better health begins with better understanding, and that small, consistent changes in the way we eat, move, think, rest, and live can become powerful foundations for a healthier life.

Healing the heart begins with understanding the life that surrounds it.

About the book

Medical science has evolved and advanced; still, there are number of cardiovascular diseases at present, like CAD, CHD, IHD, and MI, and many are ready to develop. Surprisingly, these diseases did not exist when the medical system had not evolved. During our ancestors' time, they were healthier than today's world. The unnecessary use of harmful toxic chemicals in the name of drugs is one of the most dangerous risk factors for various cardiovascular diseases, than other risk factors. I have explained the Pauling–Rath Hypothesis in this book and its clinical success, with research proof that was suppressed by big pharma companies. I have clearly given the interlink of cardiovascular diseases with other existing disorders, including diabetes and arthritis. In this book, I have given the 30-day challenge of a cardiovascular disease reversal protocol that can be followed by one to see tremendous results in cardiovascular diseases. This book comprises various neutraceuticals that can be effective for cardiovascular disease. By reading this book, one can find out how the allopathic medicines used for their health are damaging their heart from the inside and how they can cope with this scam. This book will raise a question mark for the healthcare sector, especially the Indian healthcare system, where health is being lost from drugs instead of providing a healthy life. The whole world is shifting towards alternative medicine, but the Indian healthcare

system seems more interested in selling drugs instead of curing the disease and promoting a healthy and wealthy country. The naturopathy system of medicine is very simple, cost-effective, and very capable of curing lifestyle-associated disorders, which are trending in Western and East Asia very well.

In this book, I have covered two diseases: cardiovascular CAD(coronary artery disease) and hypertension. One can understand from this book about CAD and hypertension from the conventional medicine system point as well as understand naturopathic concepts of the above diseases. There are naturopathic treatments, diet, and herbs that can cure cardiovascular diseases as well as prevent them; I have mentioned this very well in this book. I have mentioned the mechanism of action of allopathic medicines that are given by most practitioners, how they fail and promote complications inside the body. This book clearly promotes the "one cause, one treatment" concept of naturopathy, where every disease is the result of the accumulation of toxins and its manifestation is the various diseases. I hope the reader of this book will come to know what is actually going on in the healthcare sector in the entire world from just two examples of cardiovascular disease, viz. CAD and hypertension.

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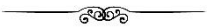
Introduction



The Heart is a complex muscular organ. Unlike other muscles, it works continuously throughout life due to its special cardiac muscle structure, where highly organized contractile proteins actin and myosin are present. The myocardium has abundant mitochondria, as well as it have their own specialised conduction system -**the SA node, AV node, and His-Purkinje fibers** that keep it active till last breath! There are a number of cardiovascular diseases that have to be studied, and researches are still going on. I have mentioned two of them: the first one is **CAD** and the other is **hypertension**. In the first section, we will understand CAD.

The arteries that supply oxygenated blood and nutrients to the myocardium are termed as **coronary arteries**. The coronary arteries are branches of the **aorta** that divide further into the left and right coronary arteries. The two left and right arteries ultimately divide into arterioles and provide oxygenated blood and nutrients to the entire heart muscle.

When the coronary arteries are narrowed or occluded by plaque, and the heart muscle does not get proper oxygen and nutrients, that condition is termed coronary artery disease(CAD) or coronary heart disease(CHD), which can

later result in ischemic heart disease(IHD) and finally myocardial infarction(MI). Plaque is not just a cholesterol deposit but a complex mass of immune cells, calcium, fat, and cellular waste. The process of plaque formation in medical is termed as **atherosclerosis.**

Why does plaque formation occur?

Plaque formation is a complex inflammatory response to endothelial damage in coronary arteries, containing lipids and inflammatory cells. There is continuous damage and repair at the cellular level all the time, known as **anabolism** and **catabolism**. There are protein synthesis and denaturation of proteins occur at the same time, and conversion of one nutrient into another takes place, like gluconeogenesis, glycolysis, the Krebs cycle, ETS, or the ornithine cycle. These are all part of cellular metabolism. And the waste products of metabolism are expelled from the body through excretory system(sweating from the skin, through urine, through fecal discharge, or through exhalation); depending on their composition and tendency to be eliminated, they are excreted through their respective routes of elimination.

The destruction(catabolism) and repair(anabolism) are always in equilibrium, and they change their dominance according to optimum cellular health needs. Ex. When muscle mass is in a growing phase, like in young age, then anabolism dominates, whereas in prolonged fasting, catabolism dominates, but they always exist together. Plaque formation is the result of this disturbed cellular metabolism, where the risk factors(smoking, HTN, obesity, high insulin, genetics, and stress) overproduce and prevent the excretion of this cellular waste. Naturopathy call this

cellular waste or **morbid matter** that must be expelled from the body. When this morbid matter enters into blood, it acts like a toxin and gives birth to the theory of **Toxemia(**entry and transportation of toxins through the bloodstream in the entire body). One thing must be clear here: morbid matter is not always cellular waste; it can be nutrients themselves as well, depending on their required threshold amount in cellular metabolism. In plaque formation, calcium, fat, cholesterol, or immune cells are all essential for the body, but due to rejection of cellular demand, the cell expels them to keep their amounts below the threshold value. If the morbid matter does not get excreted and travels through the bloodstream, it leads to arterial endothelial wall damage in association with risk factors like hypertension, high blood sugar, or high serum insulin. In the beginning, the damaged endothelial wall is repaired with the help of ascorbate(vitamin C), Lp(a), lysine, and collagen. But due to the continue exposure of risk factors to endothelial wall, it receives repeated damage, and atherosclerosis results. Atherosclerosis is the inflammatory response of the arterial wall to protect it from further lesions due to excessive morbid matter. It simply indicates that plaque formation is not overnight; it develops slowly over decades, and the body gives some warning sign also in the beginning in the form of **healing crises** at the cellular level, like deficiency of vitamin C, Lp(a) and lysine, increased serum LDL or VLDL, and active immune cells. A laboratory investigation can confirm it. Most of the physical symptoms are not present at the beginning until more than 70 to 90 percent blockage occurs because the body have their own natural bypass that compensates the work of occluded coronary arteries. Chest pressure with

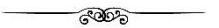
exertion, shortness of breath, and unusual fatigue are a few early physical symptoms of CAD where the natural bypass still has not developed.

Why does plaque form in the coronary arteries only?

It is a very common question: if morbid matter travels by the bloodstream throughout the body, why does plaque form in coronary arteries only rather than in other arteries or veins? It is observed that plaque formation, or atherosclerosis, is not limited to the coronary arteries only, and it develop in carotid, renal, aortic, and peripheral arteries as well. Since the coronary arteries are more crucial, their atherosclerosis becomes life-threatening, so the conventional medical practitioner focuses mostly on CAD, but at the same time there may be atherosclerosis at other sites as well. Since the body has its own natural bypass, most of the atherosclerosis sites do not produce any symptoms at the physical level, but it does exist.

The arteries receive very high blood pressure and continuous turbulence instead of the simple laminar flow of blood stream which flow in veins. So the chance of stress and endothelial damage is higher in arteries than in veins. Despite of it the, plaques develop in vascular areas where arteries branch, curve, or have disturbed blood flow, and the coronary arteries are highly branched and curved compared to other arteries. These two reasons are the main factors in coronary artery atherosclerosis development.

Vitamin C: The forgotten role in cardiovascular health



Vitamin C, or ascorbic acid, is one of the most important nutrients required for cellular damage repair, maintaining the framework of cellular structure, neutralization as well as elimination of morbid matter, and protection of the human body from foreign antigens like germs, bacteria, and viruses. Unlike animals, the human body can not synthesize vitamin C within the body; it has to be taken from outside regularly. Scientists believe that during evolution our ancestors lost the ability to manufacture vitamin C within their body around 40 million years ago. Vitamin C deficiency can cause the well-known disease **scurvy**, which causes swollen and bleeding gums, loosened teeth, bleeding beneath the skin, slow wound healing, and anemia. In the 18th century, the British Royal Navy sailors faced it during sea journeys as they lacked fresh fruits and vegetables on their ships. And it was considered the **"curse of the sea"** more than a disease because its underlying cause was not understood.[6,7]

Why Blood Vessels Are Affected in Severe Vitamin C Deficiency

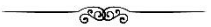
Blood circulates through the vascular system under pressure. The walls of arteries, veins, and smaller vessels like arterioles therefore require a well-oriented and

organized structural framework to maintain their elasticity and integrity. When these connective tissues become severely compromised, even the smallest blood vessels(arterioles) can become fragile, and there is a chance of leakage. This contributes to the characteristic bleeding and bruising seen in scurvy. The body possesses sophisticated mechanisms for maintaining and repairing vascular tissues. There are numerous proteins, cholesterol or lipids, cells, and signaling molecules that participate in these processes. Among all of them, lipoprotein(a), or Lp(a), is the main factor in atherosclerosis. I have mentioned lipoprotein(a) below.[7,9]

What is Lp(a)?

Lp(a) is the same as LDL(bad cholesterol), but it contains an extra protein known as apolipoprotein(a). Nowadays practitioner consider Lp(a) an important cardiovascular risk factor. Usually, Lp(a) is genetic determined molecule, but its blood level is affected by external factors like diet and addiction, including smoking and alcohol consumption. A high Lp(a) is linked with an increased risk of atherosclerotic cardiovascular disease. The biological role of Lp(a), however, is complex. Many scientists believe that Lp(a) might have a physiological role in tissue repair because of structural similarities between apolipoprotein(a) and proteins involved in coagulation and wound-healing pathways. It circulates in the blood and attach to coronary arteries only if there is damage or inflammation inside the wall of blood vessel. Anyone who wants to check their heart condition or future risk of CAD I would merely suggest him to check the blood level of Lp(a). A high Lp(a) indicates greater risk of future heart attack! This observation became a pioneer and framework in the development of the Pauling–Rath hypothesis.[2,4]

The Pauling–Rath Hypothesis



The chemist **Linus Pauling** and physician **Matthias Rath** proposed a theory in the 1980s and 1990s. The theory revealed the relationship among vitamin C, blood vessel wall injury, Lp(a), and atherosclerosis. Their hypothesis suggested that vitamin C deficiency could weaken the connective tissue of arterial walls. According to the proposed model, the body could respond to vascular injury by increasing the use or deposition of certain circulating substances, including Lp(a), as part of a compensatory repair process. As per the studies, Pauling concluded that 6 g of vitamin C and 2 g of lysine should be taken daily by cardiac patients until the symptoms disappear.

In this model, low vitamin C availability → impaired connective-tissue maintenance → vascular-wall vulnerability → increased repair response → accumulation of Lp(a) and other substances → development of atherosclerotic lesions.[2,3]

This concept differs substantially from the traditional LDL-centered explanation of atherosclerosis and was suppressed for fear that a simple vitamin C-rich nutrition could harm the many cardiac drug companies.[1]

Historical Interest in Vitamin C and Heart Disease

Interest in vitamin C and cardiovascular disease developed long before the Pauling–Rath hypothesis.

The investigators reported in 1940 that cardiovascular disease patients had vitamin C deficiency. This report put questions in front of medical practitioners: Can nutritional deficiency influence vascular health?[1,9]

1950s

Researchers, including G. C. Willis and other researchers, investigated the relationship between artery health and vitamin C, and their reports postulated a possible relationship between vitamin C and arterial disease; these findings encouraged further investigation into whether atherosclerotic changes might be modified.[9]

1960s

Irwin Stone and other advocates of vitamin C research promoted greater interest in vitamin C supplementation and its potential importance for human health.[7]

1970

Linus Pauling brought public attention to high-dose vitamin C to cure the common cold and cough. This publication suggested the medical practitioner for high dose vitamin C research.

In 19070s there was a decrease in the cardiovascular mortality rate in the United States, and a possible reason was the trend of high-dose vitamin C intake. Although it was supposed coincident where the trend of high-dose

vitamin C consumption reduced cardiovascular disease. Vitamin C consumption in the United States increased during a period in which cardiovascular mortality also declined. Many other changes in medicine, smoking prevalence, diet, diagnosis, and cardiovascular treatment occurred during this period.[1]

1986

Pauling published How to Live Longer and Feel Better, discussing vitamin C and its proposed applications in several areas of health.[6]

1989

Linus Pauling and Matthias Rath began developing their theory connecting vitamin C deficiency, vascular integrity, and Lp(a).[2]

1991

Pauling and Rath published their proposed explanation of cardiovascular disease, emphasizing the possible relationship among vitamin C deficiency, arterial-wall damage, and Lp(a).[3]

1992

Research by Edward Enstrom and colleagues reported an association between vitamin C intake and mortality outcomes in a large population of Americans. These were some important observations that sparked interest for the next generation to continue the research about the relationship between vitamin C and longevity.[10]

1990s

Research continued to find out the role of vitamin C, endothelial function, oxidative stress, and Lp(a) in cardiovascular health. At the same time, the importance of apo-B-containing lipoproteins like LDL was found.[4]

Other nutrients role

Vitamin B6: according to Abram Hoffer, MD, PhD, the pharmaceutical companies are very upset because their products have to compete with it. Some of their medicines, like statins, cost up to $150 a month, while niacin costs about $10. On 14 november, 1995 The Cleveland Clinic Foundation concluded that a low level of vitamin B6 can develop heart disease. The study was done by a team of cardiologists and cell biologists.[1]

Role of magnesium in cardiovascular health

Magnesium is one of the essential minerals involved in various physiological functions, including heart electrical activity, muscle contraction, vascular tone, and energy metabolism. The published observational research reports indicate that there is a strong connection between low magnesium intake and cardiovascular disease. Few ecological studies also confirm that the population which consume hard water containing high calcium and magnesium has lower cardiovascular disease mortality. Later, magnesium was used as an acute treatment for myocardial infarction. However, large clinical trials did not perform routine IV magnesium for MI as standard. The current management is based on antiplatelet agents and anticoagulation.[1]

Vitamin B3 and Cholesterol

Vitamin B3, also called niacin, has been used for a long time to modify serum lipid levels. It can reduce serum triglycerides and LDL cholesterol and can increase HDL, which is good for heart health. Later, the vitamin B3 supplement was added along with statins.[1]

Does this plaque melt away?

There was an in vivo experiment by Pauling and Rath in the USA where they showed the clogged artery could be opened by a lysozyme and vitamin C solution. They put the plaque-coated human organ into a lysozyme and vitamin C solution, and the plaque on the organ surface was melted. Later, in 1993 and 1994, they were awarded a U.S. patent for reversing heart disease without surgery.[1,5]

Pauling and Rath were the pioneers who first found Lp(a) as the primary risk factor for human CAD rather than bad cholesterol. Although this experiment was very informative and could result in a revolution for cardiology, their contribution was not mentioned anywhere in Lp(a) medical research studies. It was well planned conspiracy because if this concept would come out, heart disease could be cured across the world in a few days.[1,3]

The vitamin C level decides the LDL and HDL cholesterol levels in the body. Low vitamin C causes LDL(bad cholesterol) production, which prevents internal bleeding in scurvy, while high levels of vitamin C lead to HDL(good cholesterol) production, which removes the plaque from its site and transports it to the liver for recycling. This cholesterol repair mechanism was developed in the human

body during evolution to prepare it for vitamin C deficiency.[1]

The cholesterol repair-related disorder was developed by nature for self-preservation. Nature chose the lesser of two evils. Nature chose death from CVD in older age groups rather than death from scurvy in younger age; this explains why the CVD mortality rate is much higher in older people.[1]

Why are doctors unaware?

Most practitioners don't know about Pauling-Rath therapy, as there are no published studies, and the reason behind it is that there will be financial loss to cardiac drug pharma companies. Their treatment is very simple, effective, and inexpensive. The patients have consistently reported symptom relief in 10 days or less, even in advanced disease.

Pauling/Rath therapy study refused by NIH.

The Pauling therapy was very simple and effective. Take two nutrients in high dose which are required for life(vitamin C and lysine). The Vitamin C Foundation submitted two research study proposals to the U.S. National Institutes of Health(NIH) Office of Alternative Medicine in 1998 and 2002.

The reports were very surprising and amazing, and NIH documented their discoveries and success stories in the book "Practicing Medicine Without a License. After the above studies, one thing became very clear: vitamin C deficiency is one of the root causes of cardiovascular disease.

So one thing keep stucking in mind of every reader who reads this book, why after all the studies and results did medical research not accept it? The main reason is economic loss of multibillion to cardiac pharma companies, like blood cholesterol lowering drugs companies and expensive cardiac surgeons. The whole massive industry can be wiped out overnight.

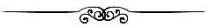
Modern medicine has done much research on statins but fails and could not stop cardiovascular diseases, indicating that LDL is not the main cause of coronary artery disease. Unfortunately, most cardiologists have very little or no idea of what really causes heart diseases. They are still practicing around the orthodox concept of cholesterol.[1]

I have given a few questions below to ask your doctors if you have any doubts about the above studies!

1. Why do only higher primates like humans and gorillas suffer from heart diseases?
2. Why do people with very low cholesterol also suffer from myocardial infarction and stroke?
3. The plaque grows back even after surgery; why?
4. What is the reason behind high cholesterol in heart patients?
5. Why has medical science not investigated the Pauling/Rath theory?
6. Why are 50 per cent of heart attacks and strokes common in people who don't have cardiovascular risk factors?

   The orthodox cholesterol theory has no answer to these questions, but the Pauling/Rath unified nutrition theory does.

Signs and Symptoms of CAD



It is very interesting to know that most heart attacks come suddenly without significant visible symptoms to the patient!. This statement is given by many cardiologists, but it's not true; there is nothing in the body that happen sudden except acute emergencies like vomiting in food poisoning, fever in infection, etc. The symptoms are the indicator signals from the body side of abnormal physiology. In the case of CHD, the practitioner expects the symptoms that they want to hear from the patient side or which they have been taught during their medical studies but its not always true that a cardiac disease symptom will come from cardiovascular system only. It can be from other parts of the body as well, which was ignored by the patients earlier, so the symptoms changed to a more severe form to seek attention from the patient immediately, and then he visits the doctor's chamber. Usually, for the first time, patients visit the doctor's chamber with complaints of chest pain or shortness of breath. He may experience later chest pain, burning, pressure, and squeezing.

The CHD symptoms differ from person to person. Some patients feel intermittent chest pain with physical activity, and some have continuous and pronounced chest pain. These are the symptoms of CHD, but it does not confirm CHD on the spot.

Signs are the visible indications in patients that are noticed by a good practitioner. These are mostly ignored by the patients because it does not harm them, up to visible problems to them eg. acanthosis nigricans is one of the prominent and early sign of insulin resistant and the most practitioner reach on the conclusion that he will suffer from diabetes in future but its not always true. High insulin can damage the kidneys or heart first, before diabetes as well. It's my notion that the conventional medicine system is totally disease-oriented, not patient-centric. That is why it fails in holistic health development, as a living being is not isolated or collection of organs, his all body parts are in rhythmical coordination with each other, so any organ abnormality will definitely affect the other body parts.

Orthodox lab tests of CAD

- **Electrocardiogram:** ECG or EKG indicates the electrical activity of the heart on a graph. Abnormal heartbeat, heart enlargement, and inadequate blood supply or previous heart attack can be found from ECG.
- **Coronary angiography:** it is an invasive test where a fine tube is placed from a major artery in the arm or leg to the coronary arteries. The heart and blood vessels are filmed while pumping the blood. The picture taken during the procedure is called an angiogram, and it shows the problem, like atherosclerosis.
- **Myocardial perfusion imaging:** it shows the damaged area of the heart and helps to find out the pumping abnormality in the pumping action of the heart. In this test, a small amount of radioactive

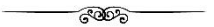
material, usually technetium-99 or thallium-201, is injected into a vein, and a special gamma camera detects the tracer in the heart. The heart muscle which accept or absorb this dye is supposed to be a healthy part of the heart, whereas unhealthy heart muscle does not absorb it due to poor circulation indicating the damaged area of heart.

- **A stress test:** It is also called a treadmill test or exercise ECG. In this test, an ECG is done during exercise. It is advised to detect heart problems which can not be detected during rest in a normal ECG, as some heart problems are seen only when the heart is in full active stage.

Revised tests for CAD

- Apart from the above-mentioned investigations, there should be nutritional assessment as well. Few important nutrient blood levels should be investigated to find out the root cause of CAD, like blood vitamin C, vitamin E, vitamin B6, and lysine, as well as Lp(a). The assessment of risk factors should not be neglected, such as HTN, smoking, a sedentary lifestyle, and stress to find out the actual root cause of CAD. It will help to cure the heart problems in future.[4]

What Naturopathy Says About CAD



Vitality: the life force

All living beings—whether plants, animals, humans, or tiny creatures—live for a specific period before eventually dying. As long as an organism is alive, countless chemical reactions occur within its body; it inhales oxygen, digests food, and excretes waste. A force drives these biological processes and compels the organism to stay alive; this force is known as "vitality." Consider what happens after death: all biological functions cease and cannot be restarted—the reason for this is the depletion of vitality. In Traditional Chinese Medicine, this is called Qi; in the language of Yoga, it is **Prana Shakti**; and in medical terms, it is simply "vitality." This force compels the organism to survive; for instance, we cannot voluntarily hold our breath for long, nor can we stop digestion or blood circulation—all because vitality drives us to stay alive. When a person enters this world, they arrive with a fixed amount of vitality; it cannot be increased under any circumstances, regardless of improvements made to diet or lifestyle. While it cannot be increased, its expenditure can be minimized so that the organism uses only the necessary amount of vitality to sustain basic life functions. The Divine has provided everyone with an equal amount of vitality—like coins of

energy—and granted us the freedom to spend it as we choose. Everyone must expend a certain portion of vitality on essential processes like digestion, breathing, circulation, and the elimination of toxins; this baseline expenditure is the same for everyone. Additional vitality is consumed when the body faces an overload of toxin removal or when the frequency of atomic vibrations at the cellular level is disrupted. Let’s understand this: when we maintain a good lifestyle, a healthy diet, and better sleep quality, the expenditure of vitality is minimized.

Let us understand this: when our lifestyle is balanced, our diet is healthy, and our sleep quality is good, the expenditure of vitality is minimal because toxins do not accumulate within the body; vitality continuously facilitates the excretion of metabolic waste. Essentially, an unseen force controls atomic vibrations at the cellular level to ensure all bodily functions operate smoothly. However, when a person's lifestyle, diet, mental state, or thought patterns become unhealthy, toxins or morbid matter begin to accumulate in the body. This causes the atomic vibration frequency at the cellular level to drop; restoring this frequency consumes excess vitality, as does the process of excreting the accumulated toxins. This is why an improper lifestyle and poor habits deplete vitality, and diseases are the adverse consequence of this diminished vitality. To elaborate further, consider that intoxicants or stimulants increase atomic frequency at the cellular level by acting on the nervous system, and maintaining that heightened frequency requires a greater expenditure of vitality. Consequently, each subsequent dose of the intoxicant feels less effective because the body's vitality has already been depleted; seeking the desired effect, the person consumes

more of the substance, thereby further draining their vitality in a vicious cycle. By the time they realize the damage, their remaining vitality is insufficient even to regulate basic metabolic functions; meanwhile, toxin levels in the body steadily rise, ultimately leading to various diseases. From what has been discussed, it should be clear that vitality is the very foundation of life and survival.

Let us now understand how diseases develop in our body. When toxins accumulate and vitality declines, the body enters an "elimination phase" to expel these toxins; processes like digestion slow down, energy levels drop, and appetite decreases. These are signs that toxins have built up and the body is actively trying to flush them out. As these toxins are expelled, symptoms such as coughs, colds, fever, or loose motions appear. This cluster of symptoms is known as an "acute disease," and it is essential for the body's periodic cleansing. If we suppress these symptoms with medication, the acute condition can transform into a chronic disease—often deemed incurable. Consider the example of loose motions: if one takes medication to stop them repeatedly, the toxins fail to exit the body through stool. Over time, this can lead to conditions like constipation, colitis, or stomach ulcers. Furthermore, repeated medication use reduces the cells' responsiveness to drugs, and the medicines themselves act as chemical toxins within the body. The human body is a complex structure; consequently, a chronic disease may sometimes attempt to revert to an acute state to expel toxins. However, people often fail to interpret these signals correctly, preventing the chronic condition from ever truly healing—even though the solution was simply to support the body's natural tendency to eliminate toxins. Heart disease is one such example; it

does not develop overnight. The body provides numerous warning signs, such as a sensation of heaviness in the chest, rapid fatigue, shortness of breath, or mild chest pain. These are all early symptoms of heart disease that patients often neglect, eventually developing a serious heart condition.

Naturopathy talks about holism rather than simply curing the disease symptoms. I have explained some interconnection below that decides the fate of a disease, the root cause of disease, and what treatment should be introduced according to the individual. The same disease may have different root causes! These axes will explain how each organ of the body is interconnected and influences the others.

The Gut–Heart–Brain Axis

For a very long time, in the medical system, the practitioner had no idea about the interconnection of various organs inside the body. They had the conventional thought that the body is a collection of separate organs and each of them has separate functions, like the digestive system is responsible for digestion only, the brain has the function of controlling thoughts and movements only, and in the same way, the heart is responsible for pumping blood throughout the body. Later, when the medical system advanced, it was found that all these organs or organ systems do not work independently, but they are in close and continuous connection through nerves, hormones, immune signals, and various biochemical substances. The gut-heart-brain connection is one of the fascinating examples of this!

One should not confuse the meaning of axis with the idea that they are in direct relation with each other or that one organ controls the other system directly. But here I mean

that, from the connection, a change in function of any one of them, viz. gut, heart, or brain, will influence the functioning of the others. The

The gut has millions of good bacteria known as the micro biome, and it is closely related to the immune system and has a strong connection with the nervous system. The brain controls the heart, blood vessels, and digestive system through autonomous nervous system, but interestingly, this control is bidirectional at the cellular level. Later I will explain this. Once you understand this communication, you will come to know how nutrition, digestion, emotional status, and sleep quality affect cardiovascular health.

The gut comprises millions of microorganisms collectively called **'gut micro biota,'** and their habitat is the large intestine. The colony of bacteria is not a single type; more than one type of bacterial colony is present in the gut, and it differs from person to person, and it is highly affected by diet, age, sleep, stress, physical activity, medications, and many other factors which I have not mentioned here. These micro biome colonies are highly dependent on dietary fibers, and these colonies produce microbial metabolites; one of the important metabolites from them is short-chain fatty acids like propionate and acetate. These short-chain fatty acids affect immune activity, metabolism, and intestinal wall cells. One of the short-chain fatty acids, butyrate, works as an energy source for the cells of the colon. This is the reason why a diet including vegetables, fruits, legumes, and nuts produces better cardiometabolic health. A single type of nutrient can not produce this effect, but the combined form of fibers, vitamins, minerals, healthy fats, and polyphenols is required for the appropriate

positive influence on cardiovascular health. Apart from this, the gut pH and environment also affect the gut-heart-brain axis functioning.

The intestinal lining is made up of multiple types of cells, viz. enterocytes, goblet cells, Paneth cells, M cells, and many more. These cells gather together, forming the 'tight junction' between each cell, and this junction acts as a barrier between intestinal contents and blood. The tight junction prevents morbid matter or harmful digestive remainants to enter into blood stream. This barrier is selectively permeable, which means it allows the passage of nutrients and other useful substances from the gastrointestinal tract to the bloodstream for the nourishment of tissues, and at the same time this junction blocks harmful substances from reaching the bloodstream. If, for any reason, this junction becomes loose and morbid matter or toxins from intestinal content leak into the bloodstream, that condition is called **"leaky gut".** When this harmful leaky substance travels through the bloodstream, it causes inflammation and damage at the cellular level, particularly mitochondrial damage, as well as affecting the normal cellular physiology of vital organs, including the heart and blood vessels.

The chronic low-grade inflammation causes obesity, insulin resistance, and it causes the activation of the immune system in response to these leaky, harmful substances. This result into autoimmune situation where the immune system attacks its own cells, as these harmful substances get absorbed into these cells and become an integral part. Atherosclerosis itself is more than the simple accumulation of cholesterol in arteries. Atherosclerosis is a complex

mechanism of endothelial damage, lipid retention, immune cell activation, and inflammatory response or signaling. The gut affects cardiovascular health through various biochemical, hormones, and immune or nerve signals.

There is one more important relationship between the gut micro biome and trimethylamine N-oxide (TMAO). The intestinal bacteria metabolise the dietary compounds choline and carnitine, which produce trimethylamine, which later transforms into TMAO in the liver. The high TMAO concentration in the blood acts as a cardiovascular disease risk factor. It is not simple that TMAO is bad for the body, as its nature is an osmolyte; it helps to stabilize proteins and cellular structures, but its threshold value decide it toxicity. Its concentration inside the blood is highly influenced by kidney function, diet, and liver metabolism, as well as the gut micro biome.

The gut communicates with the brain through the **vagus nerve**, which is a major component of the peripheral nervous system. The signal from the gut and brain is bidirectional, which means the brain controls intestinal movements, blood flow, and secretion autonomously, while the gut controls the stress response, satiety, and appetite. This makes a close interconnection between the gut and brain, where not only the nervous system but other components are involved, viz. hormones and immune cells. This is the reason why a person under stress or anxiety doesn't feel hunger, or some people feel excessive appetite under stress. Long-term stress or anxiety causes stomach ulcers. In the same way, the nicotine found mainly in cigarette increase the bowel movements by stimulating the brain-originated nerves that are attached to the intestinal

wall. And this habit makes the person addicted to smoking after meals or before the urge of motion in morning as both the process needs increase in bowel movements.

The brain also has a connection with the cardiovascular system through the autonomic nervous system(ANS). The ANS has two parts: the **sympathetic nervous system**(SNS) and **parasympathetic nervous system**(PNS). The SNS increases blood pressure and prepares the body for action, while the PNS promotes rest, recovery, and regulates heart activity through the vagus nerve in a very controlled manner. The heart rate has its own natural variation at different times that is influenced by physical activity, breathing, age, stress, sleep, and many other factors. The heart rate changes even with changes in body position, like sitting, lying down, or side-lying, etc. Stress is a perfect example to show how the gut, heart, and brain are interconnected.

If a person faces physical or psychological stress, the SNS becomes activated, and cortisol hormone is secreted from the adrenal glands of the kidneys to prepare the body in response to the stress. It is the natural changes so that the person can respond to danger and can save himself. These biochemical processes occur for a short period of time. But when the stress persists for a longer duration, and the recovery becomes inadequate, it affects sleep, appetite, blood pressure, digestion, and glucose metabolism. These all lead to the activation of the inflammatory pathway. Once the person faces chronic stress, their lifestyle becomes sedentary, lack physical activity, become addicted to alcohol consumption or smoking, he develops habits of

excessive fast food or junk food consumption, as well as his social behaviors changes that affects cardiovascular health.

Stress affects intestinal movements, gut microbiome, and secretion, which further increases stress, and this above process is repeated, making it more chronic and incurable. This is the reason why a person should be treated holistically rather than applying only symptomatic treatments, as every system of the body is well-defined and close interconnection to each other. If a person visits the hospital or clinic with cardiovascular diseases and he have poor sleep, stress, or digestive issues. All complaints should be equally considered before going for treatment, and that approach will cure the disease and will prevent in future to reappear since his lifestyle will be improved through healthcare provider suggestions.

Sleep is one of the very important factors that influence the gut-heart-brain axis. During sleep, all of the body systems, like the endocrine system, digestive system, immune system, and many more, go into a resting phase with minimal activity and prepare the body for waking up and working. Sleeping is the phase where the body gets the actual relaxation!

Poor sleep disturbs the hormonal levels inside the body, causes insulin resistance and hypertension, as well as result into cardiovascular diseases. After going through all the above interconnections between gut-heart and brain and their influence on each other, I came to the conclusion that diet is the most practical way to support the gut-heart-brain axis. There should be consumption of raw vegetables and fruits having micronutrients and phytochemicals. Nuts and legumes should be included in the diet in appropriate

proportions, which I have mentioned later in this book. These all support the gut micro biome and produce positive effects on the heart and brain. The various plants, fruits and vegetables have different phytochemicals and nutrients which support the various gut microorganisms.

Fast food consumption is totally prohibited as it contains refined oil, unhealthy fats, harmful additives, and chemical food colours. If one consumes these foods daily, he invites "leaky gut syndrome," which is the root cause of insulin resistance, hypertension, dyslipidemia, and obesity, and all of these are risk factors for cardiovascular diseases. Apart from this, the milk alsao promote the "leaky gut syndrome" as it irritates the inner wall of the intestine.

Fermented foods and probiotics are very beneficial for the gut microbiome. Fermented foods have good bacteria, as well as it act as a superfood for the preexisting gut microbiome.

Physical activity has important effects on the gut-heart-brain axis. Physical activity controls stress, improves sleep quality, cures high blood pressure, and supports a healthy weight by secreting happy hormones from the brain. The exercise maintain the cellular junctions of the intestinal wall that prevent leaky gut syndrome. Exercise keeps the balance between nutrition and drainage. The best physical activity is considered aerobic exercise, as it provides fresh oxygen to the cells.

Naturopathy is the only system of medicine which talk about holism rather than simply giving symptomatic treatment of disease. The concept of health in naturopathy is broader. It promotes lifestyle improvement, includes physical activity in daily life, provide guide to manage

stress and anxiety. These are all important not only for physical health but for mental and social well-being. The gut-heart-brain is more than a simple physiology, but the gut has its own brain and the brain has its own gut! The factor that affects one organ will definitely influence the other through complex chemical and nervous system mechanisms.

What does the person eat? How much fiber is consumed? How much physical activity occurs? Is sleep adequate? Is there chronic stress? Is smoking present? Are blood pressure and blood glucose controlled? Are medications being taken correctly? Are there digestive symptoms that require evaluation?

One question can provide the hidden factors of diseases that should be eradicated or modified. Ex. Regular physical activity improves cardiovascular health and reduces stress. The diet support digestive system and reduces cellular inflammation. All risk factors are interconnected, so their solution will also be interconnected.

Food does not affect only the stomach. Stress does not affect only the mind. Sleep does not affect only energy levels. Exercise does not benefit only muscles. The problem is not simply “the heart.” The person's metabolic system, nervous system, digestive environment, sleep pattern, behavior, and cardiovascular system are all interacting.

The Heart–Kidney Connection:

The heart and kidneys are in close interconnection. The heart pumps blood throughout the body, including the kidneys, whereas the kidneys regulate body fluid volume, balance electrolytes concentration viz., sodium and regulate

blood pressure. If any of the above organs have dysfunction, it gradually affects the other.

Every cardiac output push the blood in kidneys, and the kidneys filter it as well as decide the blood sodium level and body fluid volume. When the kidney retains excessive sodium, it disturbs the osmotic balance, causing fluid overload, which puts additional workload on the heart, contributing to hypertension. The kidney regulates blood pressure through various pathways; among them, the RAAS mechanism is well known. I have explained this mechanism later in this book.

The relationship between both organs is bidirectional. Chronic hypertension damages the small blood vessels of the kidney, and kidney dysfunction leads to high blood pressure and promotes fluid retention. Heart failure or ineffective circulation and neurohormonal activation further damage the kidneys. This interconnected condition is called cardiorenal syndrome.

The kidneys produce erythropoietin hormone, which helps to produce blood from bone marrow. Its deficiency causes anaemia, which produce workload on the heart.

From a naturopathy point of view heart friendly lifestyle supports the kidneys, and a kidney-friendly lifestyle supports the heart. There should be minimal consumption of processed foods, maintaining healthy body weight, good sleep quality, and regular physical activity. The counseling and treatment protocol should be individualized, as for a kidney patient the amount of water intake can not be the same as for a healthy person. In the same way, potassium-rich foods support heart health, but it damages the kidney.

The gut-heart-kidney axis adds another layer of interconnection between these organs, and their mutual understanding and physiological action keep a person alive!

The Heart–Liver Connection

The heart and liver seem to be two totally different organs, but both of them are deeply connected through blood circulation, metabolism, and inflammation.

The liver controls lipid and blood glucose levels in association with the pancreas, produces important proteins like albumin and globulin, and actively participates in other metabolism, whereas the heart supplies blood to the liver continuously. This connection does not mean that heart and liver disease occur simultaneously. The malfunction of the liver, viz. insulin resistance, high triglycerides, and other abnormalities in cellular metabolism, leads to diabetes mellitus, and this disease or inflammation becomes a risk factor for cardiovascular diseases.

Insulin resistance alters glucose and lipid metabolism. High triglycerides can cause inflammation and damage to the vascular layer of arteries, which ultimately results in cardiovascular disease like CAD.

The blood from the intestine, after digestion inter into liver through portal vein where the nutrients and other substances are processedand finally blood leaves the liver and enter into right chamber of heart. This creates the Gut-Liver-Heart axis. The diet influences gut health and influences the nutrients reaching the liver. The liver influences lipid and glucose metabolism. These metabolic processes affect blood vessels and the heart.

According to naturopathy, human life is a unit of multiple planes of life, and all these planes are in harmony with each other. Any disturbance in this rhythmical harmony leads to disease.

Next, I am going to explain cardiovascular diseases; all CVDs are interlinked to each other, and there may be correlation with other diseases as well. I am putting a list of some cardiovascular diseases below.

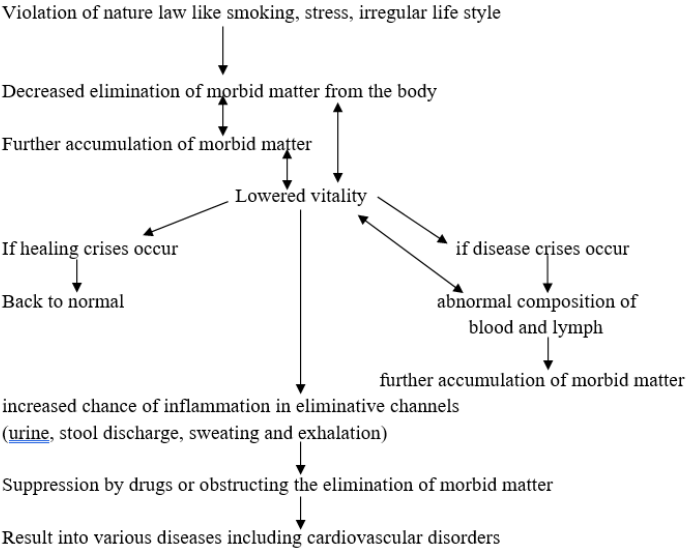
Different cardiovascular diseases: Below is the list of cardiovascular diseases and how they are interlinked to each other.

Disease	**Interlink with other cardiovascular diseases**
Hypertension	Hypertension damages the blood vessels as well as increases the workload of heart. It can develop into life threatening conditions like coronary artery disease, myocardial infarction, kidney disease and stroke.
Atherosclerosis	It is the hardening and narrowing of arteries resulted from plaque formation. It can cause CAD, myocardial infarction, ischemic heart disease or peripheral artery disease.
Coronary artery disease (CAD)	It causes the reduced blood supply to heart muscle that may result into angina and MI. the long term CAD can cause heart failure and arrhythmia.
Myocardial infarction (Heart attack)	It is the death of heart muscle due to reduced blood supply towards cardiac muscle and the possible reason may be atherosclerosis. It can later result into heart fail, cardiogenic shock, arrhythmia or cardiac death.
Heart failure	The heart does not pump blood effectively.

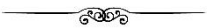
	It can develop due to MI, CAD, hypertension or vulvar heart disease.
Arrhythmias	This is the abnormal heart beat condition. And may result from ischemic heart disease, heart fail, hypertension or structural abnormality in heart.
Valvular heart disease	If the heart valve get damage it can increase cardiac workload and may lead to heart failure, pulmonary hypertension, arterial fibrillation and thromboembolism.
Peripheral arterial disease (PAD)	Usually develop due to systemic atherosclerosis and can result into CAD and stroke.
Stroke	It is the life threatening condition and can result from atherosclerosis, hypertension and other heart disease.

Below is the simplified chart of how a disease develops according to naturopathy. The main cause of disease is the accumulation of morbid matter and the suppression of the elimination of toxins by drugs. Cough, cold, fever, and diarrhea are ways of eliminating toxins that are suppressed by medicines, and later it develops into various diseases, including cardiovascular diseases.

Violation of nature law like smoking, stress, irregular life style


Violation of nature law like smoking, stress, irregular life style
Decreased elimination of morbid matter from the body
Further accumulation of morbid matter
Lowered vitality
If healing crises occur
Back to normal
if disease crises occur
abnormal composition of blood and lymph
further accumulation of morbid matter
increased chance of inflammation in eliminative channels (urine, stool discharge, sweating and exhalation)
Suppression by drugs or obstructing the elimination of morbid matter
Result into various diseases including cardiovascular disorders

Conventional diagnosis vs naturopathy diagnosis of CAD



The naturopathy diagnosis is patient-centric rather than disease centric meaning it tries to find out the actual cause of the disease. As per the naturopathy principles, the disease is the manifestation of suppression of healing crises. Ex when morbid matter accumulates in the body, the body tries to throw it out through 4 routes of elimination, i.e., urine, stool, sweating, and exhalation. And when it eliminates, the body goes into an elimination phase where digestive power becomes weak; he may have a fever or have a cough and cold. These are the signs of active elimination of toxins from the body, and this is **the healing crisis**. If the patient disturbs the elimination by taking medicine to avoid the healing crises that become dangerous to cellular health, as the morbid matter starts to recirculate in the body and accumulate in various body organs, leading to a more severe condition. After all this, the body's effort of toxin elimination becomes useless. But our body is a very complex structure, and it does not give up simply. Now the body tries to eliminate the toxin to a greater extent by developing diseases. Means the disease are the manifestation of suppressed healing crises. The simplest example of this is the cough and cold. It is the healing crisis of toxin excretion from the respiratory tract, but if it gets

suppressed regularly by external medicines, the morbid matter gets accumulated in the lungs in the form of sputum, and the body develops a secondary protective mechanism as an immune response to engulf the toxin by immune cells. COPD is the result of this immune response. It simply means the body tries to expel the toxin till last breath; it is our mistake that we try to suppress it rather than promote the elimination. The repeated suppression of healing crises makes the organ tired, meaning they are unable to make further efforts in the elimination theory of enervation. CAD is the suppression of morbid matter excretion at the cellular level. As I have explained in the beginning.

The morbid matter accumulation gives the visible signs, which are called facial diagnosis in naturopathy. The facial diagnosis gives some signs in the respective area of morbid matter deposition. Based on the area of deposition, the facial diagnosis is subdivided into four categories: front, back, side, and mixed encumbrance. The related area of encumbrance indicates the respective organs affected due to the morbid matter. e.g., the front encumbrance indicates the anterior body ailments like the heart, liver, stomach, etc. CAD is an example of front encumbrance where accumulated morbid matter affects heart health. But sometimes more than one encumbrance is also present, making it more complicated to find out the first encumbrance. But a naturopathy expert can identify this complication. In front encumbrance, there will be less or no visibility of the jawline, as well as disappearance of the line of demarcation in the anterior portion of the body, and furrows on the forehead. White coating on the tongue and teeth marks on the side of the tongue indicate liver dysfunction, most probably due to interrupted cholesterol

metabolism. If the practitioner notices these changes, he may alert the patient regarding future heart ailments.

The conventional diagnosis is disease-centric instead of patient-centric. The differential diagnosis is done based on the symptoms; e.g., peptic ulcer, GERD, and pneumothorax have almost the same symptoms as CAD. The differential diagnosis gets more confirmed as a conventional diagnosis after lab investigations. That is why medical experts call naturopathy diagnosis a holistic health approach, meaning the patient is cured on all planes of being, e.g., physical, mental, spiritual, as well as social. There are some visible signs and body signals in the physical appearance of cardiovascular system abnormality. I will discuss below.

Facial diagnosis

Facial diagnosis is the method by which the site of accumulated morbid matter is determined in the body, called **encumbrance**. The encumbrance indicates the site of morbid matter deposition or enervation of the related organs. Based on the site of morbid matter accumulation, there are four types of encumbrance: front encumbrance, back encumbrance, side encumbrance, and mixed encumbrance. Cardiovascular diseases like CAD come under front encumbrance indicating that the toxins are deposited in front portion of the body and it will cause the disease of front like heart, liver, lungs etc. The front encumbrance have the sign like disappearance of the line of demarcation in the neck, furrow on the forehead, white coating on the tongue or teeth marks on the side of tongue. This teeth mark indicates the liver dysfunction most probably the interrupted cholesterol metabolism. If the

practitioner notices these signs, he should alert the patient regarding heart health.

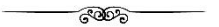
The conventional diagnosis is disease-centric, not patient-centric; that means it differentiates diseases based on their symptoms with the help of lab investigations. This is called differential diagnosis. E.g., peptic ulcer, GERD, and pneumothorax have almost the same symptoms as CAD. The lab diagnosis helps to find out the disease in conventional medicine; the main problem is not the diagnosis; the problem lies in their treatments. They try to treat the lab reports, not the patient. They want to improve the lab test scores, which does not make them ultimately good practitioners!

The major drawback of the conventional medicine system is that its diagnosis is superficial rather than finding out the root cause of disease.

The conventional management of CAD:

In the conventional medicine system, the aims of CAD treatment include relieving symptoms, preventing myocardial infarction, slowing atherosclerosis progression, and reducing cardiovascular mortality.

Pharmacological treatments of CAD



The pharmacological treatments according to the conventional medicine system are subdivided into the following categories. Most of the modern practitioners do not think beyond the chemical.

Antiplatelet drugs

The most common medicine in this group is aspirin(acetylsalicylic acid). It prevents the conversion of arachidonic acid to prostaglandin H2, which decreases platelet activation and aggregation that reduce thrombus formation.

The history of aspirin: More than 2000 years ago, ancient civilization noticed that chewing willow bark can help to reduce pain and fever. Later, salicin was found in that bark. The body changes this salicin into salicylic acid. In 1763, English clergyman and scientist Edward Stone reported that fever can be reduced by the use of willow bark extract. In the 19th century, its active substance, salicylic acid isolated. It was later observed that salicylic acid causes significant stomach irritation.

1. **Statins-** statins lower blood cholesterol, like atorvastatin or rosuvastatin.

Antianginal drugs

Beta blockers- reduce heart rate and myocardial oxygen demand.

Calcium channel blockers- promote vasodilation to prevent MI as well as reduce high blood pressure.

Nitrates- they have a potent, quick vasodilation response that relieves angina.

If the above pharmacological treatments fail, the conventional medicine system chooses surgery like revascularization. Like CABG(coronary artery bypass grafting), where surgical bypass of narrowed/blocked arteries are done by a cardiologist. Other revascularization includes PCI (Percutaneous Coronary Intervention), where a coronary stent is placed in the blocked artery. Most surgical bypass now a days are done without the actual need. You will be surprised to know that our body has natural bypass like empty or inactive blood vessels network in entire body, when there is any blockage in the artery the alternate rout of arteries become active to compensate the work of blocked artery. This is called the natural bypass. When there is angina, it simply means the blood vessel is not developed yet. There should be natural substance like ginger, garlic, and cinnamon consumption to promote vasodilation as well as to develop new arteries. In details it will be discussed later in naturopathic management of CAD.

Angiogram

Dr. Wayne highlights the heart's remarkable ability to adapt when a coronary artery becomes narrowed or obstructed. Through a process known as angiogenesis and the

development of collateral circulation, the heart can form alternative networks of small blood vessels around areas of reduced blood flow. Because these collateral vessels are often very small, they may not be clearly visible during conventional coronary angiography.[1]

Even though these arteries are small in size, sometimes a well-developed and differentiated collateral blood vessel supplies blood to the heart muscle. That is why, even if an angiogram shows a severely narrowed artery or atherosclerosis, it does not mean the heart muscle is not getting blood supply. It may receive it from collateral networks, which later mature into natural bypass. This is one of the perfect examples from the naturopathy aspect that the body heals by itself just it need the suitable environment for it.[1]

If there is angina or chest pain, it indicates that collaterals are not developed or mature, and it needs natural support like diet and postural therapy along with nutritional supplements. Sometimes a sudden peak of angina pain leads to emergency stenting or bypass surgery. It happens due to negligence of earlier symptoms of collateral development. When it does not develop, there should be emergency management like surgery. But being a good practitioner, surgery should be the last option, not the first one, as most of the cardiologist doing nowadays.[1]

Angiogram can not visualize small developing blood vessels, and it can not detect the heart muscle as well due to its X-ray nature. X-ray cannot image the heart muscle. One of the major drawbacks of an angiogram is that it can not determine whether the heart muscle supplied by an occluded artery is functioning normally or not. It is very

disappointing that around two million people are going through this useless procedure every year.[1]

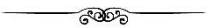
Dr. Wayne shared the data that, of these two million patients who go through an angiogram, 5000 patients suffer from heart attacks, 5000 from strokes, and around 59000 patients suffer from kidney issues due to the toxic effect of the dye used in an angiogram. It is very interesting to note that none of Dr. Wayne's patients have undergone surgery in 10 years and no major heart attack in 12 years of his practice.[1]

Concerns About Angioplasty and Heart Surgery

We agree with Dr. Julian Whitaker's view that financial interests may have influenced the development and use of some heart-surgery procedures.[1]

According to Dr. Whitaker, in some studies, the mortality rate is high in angioplasty cases compared to non surgical managements. That is why he considered angioplasty an expensive and risky treatment and does not assure against the redevelopment of atherosclerosis. Dr. Whitaker also suggested that bypass surgery may benefit certain patients, but he believed it should not always be the first treatment option, as I told earlier, particularly in patients with mild heart attacks. In his view, treatment should also focus on nutritional supplements, a healthy diet, and lifestyle changes.[1]

Diabetes and cardiovascular disease relationship



Diabetes is a metabolic disorder which result into disturbed utilization of glucose and insulin. The continued high blood sugar and insulin levels cause complications of multiple organs and body systems. Diabetes is one of the common risk factors for cerebrovascular disease or cardiovascular disorders like CAD, heart failure, stroke, atherosclerosis, and hypertension, as well as abnormal serum cholesterol and triglyceride levels, kidney disease, peripheral neuropathy, and impaired wound healing or PCOD. To understand the connection between CAD and diabetes, one should try to understand it from insulin resistance and chronic hyperglycemia point of view. Diabetes is an elevated blood sugar level, and insulin is the hormone that helps the cell to take up and utilize glucose. In type 1 diabetes, pancreatic beta cells don't produce enough insulin or don't produce it at all due to autoimmune destruction of beta cells, whereas in type 2 diabetes there is insulin resistance, and the pancreas produces excess insulin, causing hyperinsulinemia. The continuous hyperinsulinemia, hyperglycemia, inflammation, and oxidative stress, in association with abnormal blood pressure and blood lipids, cause vascular injury leading to atherosclerosis. That is why diabetes and cardiovascular

diseases are linked to each other. Diabetes is one of the independent risk factors for CAD, stroke, or peripheral arterial disease(PAD). Once any practitioner understands this relationship, they come to know the importance of controlling blood glucose, blood pressure, cholesterol level, and other cardiovascular risk factors during management of cardiovascular diseases.

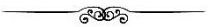
The conventional prescription of diabetes management used to focus primarily on carbohydrate metabolism, but this practice is outdated. As earlier mechanism of metabolic disorder was poorly understood. Now as the research is in favor of diabetes being a metabolic disorder involving lipid metabolism, insulin resistance, and impaired glucose regulation.

In normal cell physiology, insulin attaches to the cell surface and activates a series of intracellular signaling pathways. One of them is the movement of GLUT4 from inside the cell to the plasma membrane, particularly in skeletal muscle and adipose tissue. Once positioned at the cell surface, these transporters facilitate the movement of glucose into the cell, where it is used for energy production or stored as fat for later use. The cell membrane and other components of the insulin signaling pathway contain lipids and fatty acids that determine membrane structure and cellular signaling. A healthy cell contains a balanced mixture of fatty acids. Changes in dietary fat intake and changes in cellular lipid composition can adversely affect membrane properties and insulin signaling. The cell membrane is basically composed of fats, and the quality of fat can affect the structure and function of the cell membrane. When healthy fats are not taken from the diet or

other fatty acids are incorporated into the cell membrane, excessive consumption of trans fat, hydrogenated fat, or highly processed fats may alter the membrane characteristics and may interfere with normal cellular processes. Omega-3 fatty acids play an important role in maintaining normal cell membrane function and are obtained from flaxseed and hemp. GLUT4 helps to transport glucose from the bloodstream into the muscles and other cells in response to insulin. When the GLUT4 and insulin signaling pathway is disrupted, it increases bloodstream glucose levels as glucose uptake by cells is reduced.

Insulin resistance is not caused by one dietary component alone; it is affected by body composition, physical activity, genetics, inflammation, and liver metabolism. Trans fats, or hydrogenated fats, can adversely affect lipid metabolism and cardiovascular health. That is why hydrogenated oils and industrial trans fats should be avoided or minimized as soon as possible. Processed foods also contain trans fat. The metabolic disturbance can produce a chain of effects throughout the body. In insulin resistance, the pancreas compensates initially by releasing a greater amount of insulin, which converts excess energy into fat in adipose tissue of liver. As metabolic dysfunction progresses abnormality in glucose and lipid metabolism may develop, contributing to complications associated with diabetes. A healthy diet therefore should be emphasized, and appropriate sources of unsaturated fat should be included while limiting industrial trans fats and highly processed foods. Good sources of unsaturated fats include nuts, seeds, and fish.

Naturopathic management



The naturopathy management is a holistic way of treatment where the main focus of treatment is the underlying root cause of the disease. According to naturopathy principles, the morbid matter should be eliminated from the body to cure any disease. For that, naturopathy provides a usually eliminative diet where raw juices are given to support the elimination of toxins, as well as eliminative routes of the body are supported by treatments to remove the toxins through stool, urine, sweating, and exhalation. Apart from dietary management, naturopathy includes lifestyle modifications, naturopathic treatments, herbal and food supplements.

Lifestyle modifications

The major risk factors of cardiovascular disease are a sedentary lifestyle, inappropriate circadian rhythm, smoking, and drinking habits. To reverse CAD or cardiovascular health issues, the first step should be

-Avoid smoking or tobacco chewing.

-Discontinue alcohol consumption.

-Avoid soft drinks or junk food.

One can see the difference in treatment and diet therapy response more quickly if he discontinues the above addictions. For a few people, it is not easy to quit the addictions immediately, but he will have to! There is no shortcut to cure chronic ailments. He should start slowly and keep in mind that he has to be a true worrier for his health. Once he notices the changes after discontinuing the above addictions, he can add further changes.

For cardiovascular health and overall well-being, the following foods should be withdrawn permanently, not just for temporary measures.

Avoid Unhealthy and Highly Processed Fats

To prevent or cure cardiovascular disease, one should avoid or minimize unhealthy fats, trans fats, hydrogenated oils, margarine, deep-frying oils, and processed fats. The foods that are commercially prepared, like pastries, cookies, cake, and fried fast food, should be limited or avoided altogether. Include a healthy and minimally processed fat in your diet, like nuts and seeds or appropriate plant oils.

1. **Avoid or limit refined and Highly Processed Foods.**

To prevent CVDs, one should avoid or minimise foods which are primarily made from refined flour or have added sugar, like white bread, pastries, and sweets. High-fibre-rich grains, vegetables, legumes and fruits should be included in the diet according to individual needs instead of eliminating whole grains. Include natural sweeteners like fruits in your balanced diet and avoid added sugar. Honey or other concentrated natural sweeteners should be used in

moderation, as they contribute a significant amount of sugar.

Minimize Ultra-Processed Foods

Ultra-processed foods contain substantial amounts of trans fats, additives, and added sugar. One should include a diet of fresh ingredients and reduce reliance on commercially prepared foods.

Choose Fats Carefully

One should have a balanced diet with vegetables, fruits, legumes, seeds or nuts, and appropriate sources of unsaturated fat to prevent or reverse diabetes or cardiovascular diseases. Healthy fats are necessary for cellular health to prevent inflammation at the cellular level. Fats and lipids are the structural units of cell membranes, which decide the binding of receptors as well as the transportation of molecules inside or outside the cell that play a key role in CVDs or diabetes.

Avoid Dairy Product

The digestion of dairy products requires rennin enzyme which is absent or is in very less amount after 5 years of the age in human being. Our ancestors have lost the capacity to have it throughout their lives during evolution. And rennin is produced to digest the milk of the same species like calf have rennin to digest cow milk, and the human baby is susceptible to its mother's milk only for the necessary development in the body up to the age of 5 years. If the human baby takes milk from other species, it is not appropriate for him, as every mother's milk of every species has a separate fat, protein, and other minerals ratio

according to their baby's needs. Human milk is produced for human development, and animal milk is produced for animal development. After the age of 5 years, consumption of milk leads to incomplete digestion, which can further lead to cellular inflammation, making individuals more susceptible to cardiovascular diseases or diabetes. The individual who prefers dairy products can shift to plant-based milk and milk products like ragi milk, soya milk, or tofu. In India, there are two categories of milk: A1 and A2. A1 milk is more harmful and having more capacity to cause lactose intolerance than A2 milk.

2. **Reduce Unnecessary Chemical and Environmental Exposures**

There should be a healthy lifestyle, and unnecessary exposure to tobacco or other hazardous smoke should be avoided, or one can use a mask to prevent exposure. Pollution also contributes as a risk factor in metabolic disorders, including CVDs. The pollutants act as free radicals and cause oxidative stress at the cellular level, which damages the cell membrane and puts strain on vital organs including lungs, liver, kidney, and heart.

Heart-Healthy Foods

I have mentioned below the foods that can be added to the diet to support cardiovascular health. The diet should be balanced, and it varies according to the individual.

Include raw and fresh vegetables or fruits.

Daily meals should include plenty of fresh fruits and vegetables to increase nutrient value. Examples include cauliflower, carrot, cucumber, radish, and spinach, etc.

These vegetables and fruits provide essential vitamins, minerals, and antioxidants that reduce oxidative stress and lead to a reduction in cellular inflammation. The fruits and vegetables should be chosen according to the season. Organic farming is one of the best ways to avoid the consumption of biochemical hazards through fruits and vegetables.

2. Beneficial Fats and Oils

There are some essential fats and oils which must be included in one's diet, like flaxseed oil, hemp oil, and coconut oil. There should be minimal use of trans fat or hydrogenated fats because it is harmful to cellular health. The processed food like cake, fast foods or packaged meals should be limited or avoided altogether. Choosing less processed foods and healthier sources of dietary fat is presented as an important component of a heart-supportive eating pattern.

3. Use gluten-free grains

Gluten is a natural protein found in grains. It is found in wheat in comparison to other grains like barley and rye. The gluten provoke the immune system and generates various immune complexes which attack the pancreas, leading to insulin imbalance in the body, or it damages the kidney, heart, and other vital organs. There are alternatives to gluten-rich grains like millet, quinoa, sorghum, wild rice, and sprouted grains. Sprouted grains have essential minerals and phytochemical free vitamins that help to neutralize the immune complex.

4. Green vegetable juices and smoothies

Green vegetables are highly rich in antioxidants and magnesium, which help to reduce inflammation at the cellular level, as well as it neutralizes immune complexes responsible for autoimmune destruction or inflammation of cells. Examples include spinach, cucumber, broccoli, and coriander.

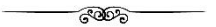
6. Use raw seeds and nuts

Raw nuts and seeds are rich in healthy fats, vitamins, minerals, and antioxidants that help to regenerate the damaged arterial wall as well as reduce inflammation at the cellular level. Peanuts should be excluded if someone is sensitive to or having allergy from it. The nuts and seeds should be consumed in raw form rather than fried, baked, or processed, as heating may decrease their nutritional value.

7. Salads

Salads offer an opportunity to combine a wide range of leafy greens, vegetables, herbs, spices, and healthy oils. Oils such as flaxseed or hemp oil may be used as part of it. Experimenting with different vegetables, seasonings, and combinations can help create flavorful salads that are enjoyable enough to include regularly in the daily diet, as well as add fibre and essential nutrients to the diet.

Heart Disease Protocol



Please understand that this protocol represents an ideal or best-case approach. The more of these foods and practices you are able to include in your daily life, the greater the potential benefits described by this program and the easier the journey toward improved heart health.

I recognize that financial limitations or limited availability may make it difficult for some people to obtain every recommended food. Therefore, do your best to include as many of these foods and follow as many of the suggested steps as your circumstances allow.

1. Make 50% of Your Food Raw

The daily food consumed should comprise 50 per cent of a raw diet, including raw fruits and vegetables. The consumption of a high-raw diet supports detoxification, prevents constipation, maintains blood pH level, as well as provides essential nutrients. The raw diet helps to balance blood sugar levels and make the gut microbiome healthy.

2. Tofu and Flax Protocol

Consume approximately **1–2 cups (300–500 grams) of soya milk or ragi milk cheese** together with a minimum of

3 tablespoons of flax oil each day, as flax oil is rich in omega-3 fatty acids.

According to this protocol, approximately ¾ **cup of tofu or cheese can absorb 3 tablespoons of flax oil**. The mixture can be blended and combined with fruits, berries, stevia, or coconut sugar to improve the taste. It is important to blend the flax oil thoroughly into the cheese so that no separate or free-floating oil remains visible. The original protocol recommends selecting a high-quality flax oil with a high omega-3 content, such as **Barlean's**, preferably without lignans for improved storage. The oil should be purchased from the refrigerated section of the grocery store.

To prepare the mixture:

- Add the tofu or cheese and flax oil thoroughly.
- Blend thoroughly using a handheld immersion blender.
- When the mixture is completely blended, freshly ground flax seeds may be added.
- Cinnamon may be sprinkled on top.
- The protocol recommends avoiding pre-ground flax seeds because their oils may become rancid rapidly.
- Consume the prepared mixture within **15 minutes**.

3. Bee Pollen

Take approximately **1 tablespoon of bee pollen daily**, which is equal to **3 teaspoons**. Bee pollen may be consumed directly or added to shakes, smoothies, salads, or other foods that will not be heated or cooked.

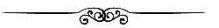
4. Green Smoothies

Have at least **one green smoothie each day**. A green smoothie may be used as a breakfast option. According to this approach, ingredients may include a teaspoon of bee pollen, a serving of green superfood powder containing ingredients such as spirulina, chlorella, barley, wheatgrass, and other superfoods. Raw coconut sugar may be added for sweetness.

5. Water

Drink a minimum of **2 litres, or approximately 68 ounces, of clean, filtered water each day**. This protocol recommends limiting tap water when possible because it may contain substances such as fluoride or chlorine. According to the original approach, these substances may interfere with cellular oxygen and nutrient absorption and may slow the healing process.

Heart Disease Protocol: Supplement Schedule[1]



The supplements in this protocol should be distributed as evenly as possible throughout the day.

Powder of green superfood

There should be consumption of one tablespoon of green superfood powder in a smoothie of fruits or green vegetables.

Vitamin C

Take **8–15 grams of regular ascorbic acid daily**. This protocol recommends regular ascorbic acid rather than the Ester-C form. **L-lysine and L-proline** enhance the effect of vitamin C; that's why they should be included along with a vitamin C supplement.

Vitamin E: A dose of 800 IU daily should be taken

Vitamin D3: Take 6,000 IU daily for one month.

Vitamin B Complex

The appropriate amount may vary depending on the product and its formulation. Follow the directions provided on the bottle, with this protocol recommending a minimum of **50 mg daily**.

Coenzyme Q10

Take **100–300 mg per day**. This protocol specifically recommends the **ubiquinol** form rather than **ubiquinone**.

L-Lysine

Take **4–6 grams daily**.

L-Proline

Take between **500 and 2,000 mg daily**.

Vitamin A

Take **20,000–40,000 IU daily**.

Bioflavonoids and Quercetin

Daily, **150 mg** of bioflavonoids, including quercetin, should be taken.

Borage Oil

1,000 mg capsules of borage oil three times per day. The borage oil is a combination of omega fatty acids, including GLA, LA, and EA.

Iodine

Adding two drops of iodine and iodide, like Lugol's or Iodoral, in a glass of water daily improves cardiovascular health.

Note: Before starting the supplement therapy one should consult the healthcare professional and there should be routine blood level check of the above nutrients to prevent the toxicity! As there may be already some minerals or

nutrients high, if so then its dose can be readjusted and there are few caution like vitamin E and Iron supplement are not given together and at least there should be 9 hour gap between their intake.

Include Omega-3 and Omega-6 Oils

The trans fats, hydrogenated fats and other processed fats disrupt normal cell function and interfere with glucose movement from the bloodstream into the cells. The unprocessed sources of omega-3 and omega-6 fatty acids should be included in the diet. Because vitamin C is also described as relying on an insulin-mediated transport process, the same difficulty may theoretically affect the ability of vitamin C to enter cells, particularly in people with diabetes. Replacing trans fats with omega-3 fatty acids is proposed as a way to support healthier cell membrane function and correct these disturbances.

Use Unrefined Salt

This protocol recommends consuming salt in its unrefined form rather than relying on ordinary refined table salt.

The original discussion refers to literature cited by alternative medicine physician David Brownstein suggesting that severe sodium restriction may alter hormonal balance as the body attempts to conserve sodium. According to this viewpoint, such changes may contribute to an increased risk of heart problems in certain individuals with high blood pressure and low sodium intake.

Unrefined varieties, such as sea salt and Himalayan salt, are preferred in this approach because they contain additional naturally occurring minerals.

Use Magnesium Supplements and Limit Excess Manganese.

According to this protocol, magnesium plays an important role in normal heart function, and its deficiency can result in CVDs. The recommended daily use of magnesium is 150 -1500 mg/day. This protocol suggests limiting the manganese supplement to a maximum of 2 mg daily, as high manganese (more than 20 mg/day) can cause irregular heart rhythm.

Avoid sugar and refined foods.

There should be quite the dietary intake of white bread, potatoes, pasta and other refined foods as soon as possible because the glucose and vitamin C have similar chemical structures. Sugar and vitamin C compete during insulin-mediated cellular transport. Therefore, high sugar and refined carbohydrate intake is proposed to reduce the amount of vitamin C entering cells. This effect is described as particularly significant for people with diabetes because elevated blood glucose levels may further reduce vitamin C uptake**.**

Include Supplemental Vitamin D3

In the winter months, when sunlight exposure is low and the skin does not produce enough vitamin D, in that situation 4000 IU of vitamin D3 should be taken daily. The amount of vitamin D production depends on exposure to suitable ultraviolet B (UVB) radiation, and it does get affected by latitude, season and time of the day. For optimum production of vitamin D3, which is 8000 IU, one should get sun exposure for approximately 20 minutes per

day. This protocol favors vitamin D 3 role in attributing cardiovascular immune supporting and other health benefits.

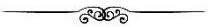
Take Melatonin Before Bed

Taking 3-6 mg of melatonin before bedtime corrects the sleep- wake cycle. The melatonin hormone is produced primarily by the Pineal gland in response to darkness. The original approach also describes melatonin as a powerful antioxidant.

According to this protocol, some individuals with heart disease, including those who experience sleep difficulties while using prescription statin medications, may benefit from melatonin supplementation. It suggests that reduced melatonin production may contribute to sleep difficulties, particularly with increasing age.

The recommended dose of **3–6 mg before bed** is intended to support improved sleep. The original text also attributes a wide range of longevity, cardiovascular, and anti-cancer benefits to melatonin. The protocol further notes that melatonin has a relatively short half-life in the bloodstream, estimated at approximately **30 minutes**, and describes it as both fat- and water-soluble. It also emphasises that melatonin is naturally present in a wide range of plant and animal cells.

Naturopathy Therapies



1. Mud pack on abdomen followed by simple lukewarm water(40 degree celcius) enema or cinnamon water enema.
2. Yoga therapy
3. Pranayama like anulom vilom, shitali or shitkari pranayama.

Exercise

45 minutes of daily exercise should be done to keep the balance between nutrition and drainage. It can be aerobic, cycling, swimming or Yoga.

Fasting

Fasting is a powerful and cost-free way to help the body in detoxification as well as to create the environment of healing inside the body. Fasting should be done once a week. Water fasting or mono-juice fasting, like lemon water and tender coconut water fasting is most useful for cardiovascular health.

Sunshine

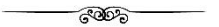
30 minutes of skin exposure to sunlight is suggested to our patients to keep the balance of vitamin D3 in the body. 70

percent body should be exposed to sunlight, and in India during summer time ideal time is around 8:00 am while in winter it is around 11:00 am of taking sun bath.

Sauna

Use a sauna at least once per week. According to this protocol, regular sauna sessions may support sweating and the elimination of toxins from the body. It should be done under the supervision of an expert.

Herbal supplements for CAD



There are some herbal ingredients that should be consumed daily to cure cardiovascular diseases. I will discuss them one by one.

- **For liver detoxification and metabolism improvement.**

  It helps to improve liver function to correct cholesterol metabolism as well as maintain overall metabolism. The individual ingredients and their benefits have been mentioned below along with necessary information.

Herbs	**Scientific name**	**Daily adult dose**	**benefits**
Makoy	*Solanum nigrum*	Poweder 5 g/day	Improve liver health and reduce inflammation.
Giloy	*Tinospora cordifolia*	Powder 3-6 g/day	Useful in fever and boost immunity.
Arjuna	*Terminalia arjuna*	Powder 3-6 g/day	Cure CVDs, reduce high B.P. and support heart function.
Nagarmotha	*Cyperus*	Powder 1-	Used in indigestion,

	rotundus	3 g/day	menstrual problems and abdominal discomfort.
Bhringraj	*Bhringraj*	Powder 3-6 g/day	Support liver health and scalp health
Kutki	*Picrorhiza kurroa*	Powder 0.5-1.5 g/day	Used in liver and kidney problems.
Kalmegh	*Andrographis paniculata*	Powder 1-3 g/day	Digestive and liver disorders, respiratory infection.
punarnava	*Boerhavia diffusa*	Powder 3-6 g/day	Mild diuretic and support urinary health.
Bhumi amla	*Phyllanthus amarus*	Powder 3-6 g/day	Used in liver disease, digestive and kidney issues.

The powder of the above having daily dose mentioned can be combined in a single form, and 3-5 grams daily should be consumed preferably on an empty stomach which-

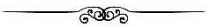
- Supports healthy liver function.
- Promotes natural detoxification.
- Supports digestion and metabolism.
- Strengthens the heart.

- **For cardiovascular health**

  These herbs are potent cardiovascular tonics like arjuna, guggul, and sarpgandha. More details and benefits are mentioned below.

Herbs	**Scientific name**	**Daily adult dose**	**Benefits**
Arjuna	*Terminalia arjuna*	Powder 3-6 g/day	Cure CVDs, reduce high B.P. and support heart function.
Guggul	*Comiphora wightii*	Powder 1-3 g/day	For lipid metabolism, inflammation and joint health
sarpgandha	*Rauvolfia surpentina*	Powder 1-3 g/day	used in hypertension and produce sedative effects

Hypertension



Introduction

Hypertension, or high blood pressure, is a serious health issue related to the cardiovascular system and imparts serious adverse effects on other body systems, including the kidneys, heart, liver, and other vital organs and vascular systems. An interesting fact about hypertension is that, despite affecting several people, most of them are unaware; that is why medical experts call it a **"silent killer".** According to the National Institute of Epidemiology, around 23- 30 percent of adults in India suffer from hypertension. It is not an isolated disease. It is a major systemic disorder which can interact with cardiovascular, renal, nervous, or metabolic systems. In this section, I will explain how hypertension can be cured through naturopathy, herbal medications, or artificial interventions. Persistent elevation of blood pressure increases mechanical stress on blood vessel walls and gradually damages vital organs.

Hypertension is a complication of other diseases like kidney disease, endocrine disorders, diabetes, or obesity. According to Naturopathy, hypertension is related not only to physical health but also to the person's emotional health and contributes as a risk factor in association with physical

activity, body weight, diet, sleep, and overall lifestyle. Remember, each factor mentioned above is enough to cause hypertension or other cardiovascular diseases. Before understanding the natural management of hypertension, it is important to understand blood pressure and the contributing or risk factors that cause it to develop.

The heart is a powerful pumping muscular organ that circulates oxygenated blood throughout thebody through a network of arteries and capillaries, and deoxygenated blood returns to the heart through veins. Blood pressure is the force exerted by circulating blood on the inner wall of arteries as the heart pumps. When the heart contracts, the blood flow through the arteries increases, resulting in an increase in pressure inside them. This blood pressure is referred to as systolic blood pressure, and when the heart relaxes while returning the blood inside the heart through veins to refill it, the arteries face minimum pressure at that time. That pressure is referred to as diastolic blood pressure. When blood pressure is measured, both systolic and diastolic blood pressures are measured. Blood pressure is mentioned in two numbers: the first is systolic and the second is diastolic blood pressure (in mmHg). **Example:** a blood pressure mentioned as 120/80 mmHg; here, 120 is systolic blood pressure, and 80 is diastolic blood pressure, and mmHg is millimeters of mercury(a unit of pressure). This mmHg indicates how many millimeters of mercury will rise when applying the above pressure from sea level. Blood pressure varies from person to person. The systolic blood pressure may range from 90 to 240 mmHg, and the diastolic blood pressure can range from 40 to 160 mmHg. Blood pressure also varies according to a person's physical activity and emotional state. Anxiety, stress, exercise,

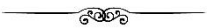
prolonged standing, or nervousness can cause hypertension. On the same day, blood pressure may fluctuate; that is why, to get one's actual blood pressure, it should be measured at the same time for 7 days under similar conditions.

Hypertension and Its Health Risks

If the blood pressure is consistently elevated above 140/90 mmHg, it is considered high blood pressure in the conventional medical system. But normal blood pressure varies according to age, and it can be calculated with the formula **90+age of the person in years**. For example, if a person aged 60 years goes for a blood pressure check, his/her normal systolic blood pressure will be up to 60+90=150 mmHg, not 120 mmHg. In hypertension, the continuous high blood pressure causes the heart muscle to get thick, as well as heart enlargement. The mild enlargement does not produce any sign or symptoms but significant enlargement of heart can affect heart function and efficiency resulting into heart related complications, as well as the strain on arteries result tear and damage of it and during repairing of this damaged artery can cause plaque formation which ultimately result into CAD and other serious cardiovascular diseases. So, hypertension is one of the important independent risk factors that can cause CAD, IHD, and MI. This makes sense of maintaining blood pressure in a healthy range. Lifestyle modification is the only possible way to control blood pressure; some of them are diet, regular physical activity, reducing obesity, as well as balancing the electrolytes, including sodium and potassium. Certain medications are being prescribed nowadays by the conventional medical system when lifestyle changes alone are insufficient. Beta-blockers, for

example, can reduce heart rate and decrease the amount of blood pumped by the heart per minute. By lowering the workload on the cardiovascular system and reducing blood pressure, one thing must be clear: medicines don't act on the body; the body responds to that chemical. It's all about the cellular response that decides the drug potency. It's chemical action and reaction mechanism; that's why long-term use of medicines causes exhaustion of reaction energy(enervation), and That's why the dose and chemical formula of the medicines are kept changing. These medications may help decrease the risk of certain heart and brain complications in appropriate patients, but does not cure it but makes the patient drug-dependent. Some diseases also cause blood pressure to shoot up, like kidney disorders, where decreased metabolic waste excretion result into imbalance in blood electrolytes, and it leads to an increase in blood pressure. The heart tries to increase the GFR by pushing extra blood pressure on the kidneys. In that situation, blood pressure can be reduced only by removing the toxins from the blood, and this problem led to the birth of the hemodialysis concept in medicine. Dialysis is the second choice or should be suggested in an emergency. The goal of the treatment should be correcting the diet to minimize the metabolic wastes and the regeneration of the kidney so that the body can adopt natural excretion. The dialysis cause the loss of blood and proteins, that result into various complications inside the body. There are different classes of antihypertensive drugs as well, but it can be cured only by finding the root cause of it and removing the risk factors.

Conventional Approaches to Manage High Blood Pressure



There are a number of antihypertensive drugs available in each class of medication, but none of the medicines focus on the root cause of its development, and every drugs have their own advantages, limitations, and potential side effects. I will discuss a few antihypertensive drugs in the next section, their mechanism, and how they are ineffective in curing hypertension at the root. The drug should not be the ultimate approach to manage hypertension. A healthy lifestyle and diet can help to maintain blood pressure within a healthy range and may reduce the need for medication in the future as well.

Lifestyle Modifications

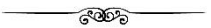
Whether a person has hypertension or is pre-hypertensive, in both situations lifestyle changes can contribute significantly to maintaining blood pressure within a healthy range. The core approach to curing hypertension should not be medications but should recommend lifestyle improvements alongside, instead of medical treatment. In some cases, these changes may lower blood pressure sufficiently to reduce the amount or number of medications required.

Important lifestyle measures include:

- Avoid smoking.
- Avoid fast food and include a healthy diet like fruits, vegetables, and try to avoid dairy products.
- Limit the salt intake.
- Maintain weight and BMI within the normal range.
- Include physical activity in daily life for at least 30 minutes a day.
- Avoid alcohol consumption.
- People with pre-hypertension condition does not require antihypertensive drugs immediately but should emphasize diet and physical activity.

But nowadays, diet and lifestyle modification are put as a secondary option, and medicines on priority, which makes patients more susceptible to kidney disease, heart disease, and diabetes as well.

Conventional management for Stage 1 High Blood Pressure



When the systolic blood pressure is 140-159 mmHg and the diastolic pressure is 90-99 mmHg, according to the conventional medical system, hypertension is classified as stage 1 hypertension. And the stage 1 hypertension should be managed by improving diet, increasing physical activity, maintaining a healthy body weight, and maintaining overall lifestyle healthy. These habits can improve overall cardiovascular health, including hypertension. I have mentioned a few stage 1 antihypertensive drugs below with their possible mechanism of action and why these medicines should not be the first-line treatment choice.

Diuretics

Diuretics are used as an initial treatment choice for hypertension. The diuretics excrete excess sodium and water, which reduces the fluid volume in blood vessels, leading to blood pressure drop. There are several types of diuretics, and among them, thiazide diuretic is most common and first-line option for treating hypertension. Compared to other classes of antihypertensive drugs the diuretics have least side effects and can protect in severe

complications of hypertension, like stroke and heart failure. The potential side effects of diuretics are known to almost every practitioner; still, they prescribe them. The diuretics excrete the excessive water and sodium from the body through urine but do not cure the root cause of excessive fluid accumulation. The reason behind it may be cardiac, liver, or kidney dysfunction. It does not address albumin or globulin proteins, which are also responsible for excessive fluid accumulation in cells. Apart from this, if diuretics are taken to lower the blood pressure, there would be faster accumulation of fluid to equalize the osmotic pressure. The diuretics have side effects on kidney and liver functions. The choice of treatment should be according to the individual's blood pressure and other health conditions, including cardiovascular health.

Medications for High Blood Pressure

Earlier, the choice of antihypertensive drug depends not only on hypertension but also on other health conditions.

Angiotensin-Converting Enzyme (ACE) Inhibitors

ACE inhibitors help to reduce blood pressure by inhibiting the angiotensin II formation. The angiotensin II is responsible for vasoconstriction(narrowing of blood vessels). Their inhibition results in blood vessels widening and relax that help to blood flow more easily through blood vessels and reduces blood pressure.

The common examples of ACE inhibitors

- Enlapril(vasotec)
- Ramipril(altace)
- Lisinopril(prinivil)

Angiotensin II Receptor Blockers (ARBs)

Angiotensin II receptor blockers prevent angiotensin II from acting on its receptors. This helps the blood vessels to relax and reduces blood pressure.

Common examples include:

- Losartan (Cozaar)
- Candesartan (Atacand)
- Valsartan (Diovan)

Before understanding ACE inhibitors or ARBs, we should understand the RAAS mechanism, which is a protective physiological response of the body to prevent blood pressure from falling below the normal level. Our body is very sensitive and capable of surviving in unfavorable conditions, RAAS(Renin Angiotension Aldosteron system) mechanism is one of them. It gets activated to maintain blood pressure and circulation. When the kidneys sense that blood flow or circulating volume is too low, it response by secreting the renin enzyme. The three major triggers for the kidneys include low blood pressure, low sodium reaching the macula densa of the kidney, and third is sympathetic nervous system activation(due to stress and anxiety, blood loss, and dehydration), etc.

Low blood pressure
↓
Rennin release
↓
Angiotensin
↓
Angiotensin I
↓
ACE
↓
Angiotensin II

Angiotensin II Promotes vasoconstriction, stimulates aldosterone synthesis, which causes the kidneys to retain water and sodium, as well as stimulates thirst. Ultimately, blood pressure and blood volume increase. So the RAAS is a protective mechanism but becomes problematic if it gets continuously activated. A good practitioner tries to find out the reason behind the RAAS activation rather than prescribing ACE inhibitors that prevent the conversion of Angiotensin I to Angiotensin II . Most of the practitioners don't try to find out why the kidney is producing renin, which ultimately results in Angiotensin II synthesis. The answer lies in the holistic approach to the patient. Stress and anxiety, smoking, alcohol consumption, a sedentary lifestyle, or having any emotional trauma in his/her life. These are some important factors of kidney dysfunction. The kidneys are the center of emotions . Usually, the kidney response unnecessarily in the state of fear or confusion. If proper counseling is done, one can find out the trigger factor, and eliminating that factor can be a real cure for HTN instead of giving temporary ACE inhibitors.

Beta Blockers

Beta blockers are a class of antihypertensive drugs that block certain nerve and hormonal signals, including beta-adrenergic receptors and sympathetic neurotransmitters (norepinephrine and epinephrine) that affect the heart and blood vessels and decrease shoot up of blood pressure. These beta blockers can decrease heart rate as well as the pumping force of the heart, resulting in reduced blood pressure.

Common examples of beta blockers:

- Metoprolol
- Nadolol
- Atenolol

Calcium Channel Blockers

Calcium channel blockers work on the smooth muscles of the heart and blood vessels. They limit the entry of calcium into muscle cells, causing the relaxation of these muscles. And this result into lower blood pressure.

Common examples of calcium channel blockers

- Amlodipine
- Diltiazem
- Nifedipine

Renin Inhibitors

Renin is the enzyme that is produced by the kidneys and is responsible for raising blood pressure. The renin inhibitors block this enzyme activity, leading to a drop in blood pressure.

Combination Therapy

When the conventional medical system fails to manage hypertension with a single type of chemical, it combines more than one type of antihypertensive medicine. You will be surprised to know thatthese chemicals cause more harm to cellular health, like liver failure, kidney disease, diabetes, and peripheral neuropathy. The chemicals that are used in medicines as drugs are actually poison in nature. Poison and drugs are the same in nature just its dose decides either

it will work as medicine or will work as poison .The most appropriate combination depends on the individual's medical condition and other personal circumstances.

Medication Options for Stage 2 High Blood Pressure

Stage 2 hypertension is classified as having systolic blood pressure above 160 mmHg and diastolic blood pressure above 100 mmHg, or both. The most common drug used in the second stage of hypertension is a diuretic like a thiazide, along with other antihypertensive drugs according to individual conditions; some of them have been mentioned below:

- An ACE inhibitor
- An angiotensin II receptor blocker
- A beta blocker
- A calcium channel blocker
- A renin inhibitor

If an initial combination does not adequately control blood pressure, additional medications may be considered. These can include drugs such as alpha blockers or vasodilators. However, these medications can produce stronger side effects than some commonly used antihypertensive drugs. It simply signifies that only chemicals cannot cure hypertension. The diagnosis and treatment must be patient-centric instead of symptomatic relief.

Resistant High Blood Pressure

Sometimes blood pressure remains difficult to control despite treatment. If blood pressure does not decrease adequately while taking at least three different types of

blood pressure medication, including a diuretic, the condition may be considered resistant hypertension. People whose blood pressure is controlled only by taking four different types of antihypertensive medications may also be classified as having resistant hypertension. In some cases, adding a potassium-sparing diuretic, such as spironolactone (Aldactone), can help improve blood pressure control. Let me give an example of this. Usually, a kidney patient has high blood pressure because the body response to put extra fluid pressure on the kidneys to make them functional or to increase urine output to excrete the morbid matter from the blood. If one takes a blood pressure-lowering agent, it may disturb the natural protective mechanism. In this case, curing kidney disease is the only way that can correct the hypertension.

Drugs that can adversely affect blood pressure

There are some medications that cause blood pressure to shoot up, and if the patient is already taking antihypertensive drugs, it can interfere and make the situation even worse.

I have mentioned some common types of medications that may worsen hypertension.

Nonsteroidal Anti-Inflammatory Drugs (NSAIDs)

This class of medicines is used to relieve pain and reduce inflammation, such as in arthritis problems, and a potential side effect of NSAIDs is it retain fluid and reduce kidney function, causing high blood pressure and putting strain on the heart and kidneys.

Common examples of NSAIDs include

- Ibuprofen
- Naproxen

Sometimes NSAIDs may be present in OTC (over-the-counter) drugs such as cold and flu medicines. People should not take NSAIDs by their own.

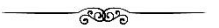
Cough and Cold Medications

As I mentioned earlier, cough and cold medications may have NSAIDs for pain relief, and this can lead to hypertension. Apart from this, NSAIDs contain decongestants that may shoot the BP also especially in the hypertension patients. A healthcare professional can suggest alternative of it as natural substitutes like decoction of eucalyptus, mulethi, black pepper, or tulsi leaves according to the individual's health condition.

Migraine Medications

The medicines used for migraine to treat headache narrows the blood vessels of the head that may result in high blood pressure, example sumatriptin and rizatriptan. Anyone with hypertension or other heart-related problems should not take migraine medicines on their own. Instead of taking medicine, aromatherapy can be a natural substitute to relieve migraine pain; for example, peppermint oil, lavender oil, or rosemary oil.

Interlink between hypertension and other diseases



1. Coronary artery disease

Long-standing hypertension can damage the vascular endothelium and lead to atherosclerosis, arterial stiffness, plaque formation, and reduced coronary blood flow. Ultimately, the heart receives less oxygen and nutrients, which can result in Angina or Myocardial infarction.

2. Heart failure

When blood pressure remains high, the left ventricle has to pump against greater resistance (**increased afterload**). Initially, hypertension creates increased afterload that leads to left ventricular hypertrophy. The thickened heart may be stiff and eventually weaken, causing heart failure.

3. Hypertension and Kidney Disease

The kidneys play a central role in controlling blood pressure through sodium-water balance and the renin-angiotensin-aldosterone system (RAAS), as I have explained earlier.

Hypertension and kidney disease are bidirectional.

It simply indicates that hypertension leads to kidney damage, and kidney disease results in hypertension. The

high pressure damages small renal blood vessels and glomeruli, which can lead to reduced renal function, proteinuria/albuminnuria and chronic kidney disease. At the same time, kidney disease leads to hypertension, and impaired kidneys may retain sodium and water. They mayhave abnormal RAAS activity. This increases blood volume and vascular resistance.

4. Hypertension and Diabetes Mellitus

Usually, the person having diabetes are more prone to hypertension, and vice versa. The reason behind it is high blood sugar and insulin. Most of the healthcare professionals do not check the serum insulin level before prescribing oral hypoglycemic medicines that provoke insulin secretion. High insulin is equally harmful as high blood sugar. Apart from this, hypertension and diabetes share common risk factors including obesity, unhealthy diet, physical inactivity, and insulin resistance. High blood sugar can damage blood vessels and kidneys, and hypertension promotes this damage.

Important relationship

Diabetes + hypertension → greatly increased cardiovascular and renal risk.

Patients with both conditions have increased risk of coronary artery disease, stroke, chronic kidney disease, retinopathy, and peripheral vascular disease.

5. Hypertension and Obesity

Obesity is one of the important modifiable risk factors for hypertension. The excess adipose tissue can lead to insulin resistance, inflammation, increased sodium retention,

increased vascular resistance, as well as activation of the RAAS mechanism. Therefore, obesity can lead to metabolic and vascular changes that result in hypertension.

The obese person faces problems with physical activity to reduce weight, that makes the metabolic health. The patient should follow a balanced diet, get adequate sleep, do around 15-20 minutes of moderate physical activity, and practice stress management. This can substantially improve cardiovascular health.

6. Hypertension and Metabolic Syndrome

Metabolic syndrome refers to a cluster of metabolic abnormalities like obesity, high blood pressure, high triglycerides, low HDL, and insulin resistance. Insulin resistance causes hyperinsulinemia, leading to activation of sympathetic activity, and this activation increases blood pressure through sodium retention. This is a very known and simple pattern. At the same time, obesity can result in cellular inflammation, causing insulin resistance and leading to metabolic dysfunction. This signifies that hypertension is a component of metabolic syndrome.

7. Hypertension and Stroke

Hypertension is one of the major modifiable risk factors for stroke. It can coIt can contribute to both like the ischemic stroke, which causes vascular injury, and atherosclerosis and arterial narrowing, which reduce the blood supply to the brain. Whereas hemorrhagic stroke can weaken cerebral blood vessels and increase the risk of rupture. Both ischemic and hemorrhagic strokes are manifestations of blood pressure shooting up, except in some emergency situations like brain injury.

8. Hypertension and Eye Diseases

Behind the retina, there are very small blood vessels that are sensitive to high blood pressure. Hypertension can result in retinopathy due to retinal hemorrhage and optic disc swelling.

9. Hypertension and Peripheral Arterial Disease

Hypertension causes vascular injury leading to atherosclerosis. When the peripheral arteries become narrowed, the blood supply to peripheral limbs like the legs is reduced, which results in leg pain while walking, weak peripheral pulses, and cold extremities, as well as poor peripheral wound healing. PAD is accelerated by risk factors like dyslipidemia, smoking, and diabetes.

10. Hypertension and Dyslipidemia

High LDL and low HDL promote atherosclerosis, along with other risk factors leading to an increase in mechanical stress on arteries. That’s why healthcare professionals should not focus only on the BP number but should notice the other parameters as well. High LDL cholesterol and other lipid abnormalities promote atherosclerosis. Hypertension simultaneously increases mechanical stress on the arterial wall. This is why management of hypertension should not focus only on the BP number. A person's **overall cardiovascular risk profile** is important.

11. Hypertension and Stress

It is one of the major risk factors for hypertension. Psychological stress can temporarily increase blood pressure through activation of the sympathetic nervous

system, adrenaline or noradrenaline pathways, and the hypothalamic–pituitary–adrenal axis.

Chronic stress: Long-term stress may contribute indirectly through

- Poor sleep
- Emotional eating
- Reduced physical activity
- Increased alcohol/tobacco use
- Persistent sympathetic activation

Naturopathic interventions

Appropriate supportive approaches include:

- Breathing exercises like chandrabhedi pranayama, anulom vilom.
- Yoga
- Meditation
- Relaxation techniques
- Regular physical activity
- Adequate sleep
- Time in nature
- Stress-management counseling

13. Hypertension and Sleep Disturbance

Poor sleep, including obstructed and irregular sleep patterns, can activate sympathetic activity, hormonal irregularities, increased body weight, and disturbed glucose metabolism, which are the major contributing risk factors for hypertension.

14. Hypertension and Thyroid Disorders

Hyperthyroidism increases heart rate, cardiac output, and systolic blood pressure, whereas hypothyroidism increases

diastolic blood pressure and vascular resistance. Healthcare professionals should find out the reason behind the unexplained hypertension.

15. Hypertension and Adrenal Disorders

The adrenal glands produce aldosterone, which influences blood pressure. Excess aldosterone causes sodium retention, which results in increased blood volume and hypertension as well. There is a condition known as pheochromocytoma, where a rare adrenal tumor produces excess catecholamines that cause hypertension, palpitations, sweating, and headache.

16. Hypertension and Liver/Metabolic Health

Hypertension usually occurs with metabolic dysfunction or liver disease, especially in patients who already have obesity, insulin resistance, dyslipidemia, and diabetes. Lifestyle modifications can improve metabolic health and can reverse hypertension as well.

17. Hypertension and Gout

Hypertension usually coexists with gout due to reduced uric acid excretion that can result from kidney dysfunction and insulin resistance; some antihypertensive drugs can influence uric acid metabolism as well.

18. Hypertension and Erectile Dysfunction

Long-term hypertension damages the vascular endothelium, which results in impaired penile blood flow, and penile erection is dependent on adequate vascular function. Erectile dysfunction can be an early marker of broader vascular disease.

19. Hypertension and Dementia/Cognitive Decline

Persistent hypertension damages small cerebral blood vessels that affect cerebral vascular health and results in cognitive impairment and dementia.

20. Hypertension and Peripheral Neuropathy

When hypertension combines with diabetes, the impaired circulation and high blood sugar affect nerve health, resulting in peripheral neuropathy.

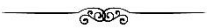
21. Left ventricular hypertrophy

Chronic hypertension puts an overload on the chambers of heart especially ventricles that cause cardiac muscle to become thicker.LV hypertrophy is therefore an important marker of chronic hypertension-related cardiovascular damage.

Tips for Preventing Medication-Related Problems

- People with high blood pressure can take several steps to reduce the risk of medication-related complications:
- Read medication labels carefully before purchasing or using over-the-counter products.
- Check whether a product contains ingredients that may increase blood pressure, such as NSAIDs or decongestants.
- Consult a healthcare professional before taking over-the-counter medications, herbal preparations, vitamins, or nutritional supplements.

Measures That May Help Reduce High Blood Pressure



Reducing Sodium Intake

Low consumption or avoidance of table salt is very useful for high blood pressure patients, as it increases fluid volume and raises blood pressure. Lowering sodium consumption is an important strategy for controlling blood pressure. A person who has hypertension can see a drop in BP if he avoids sodium in his diet. It is helpful to identify foods that are high in sodium and limit or avoid them when appropriate. Include fruits and vegetables that provide important vitamins, minerals, and dietary fiber.

A **DASH(Dietary Approaches to Stop Hypertension)-style dietary pattern** emphasizes:

- Vegetables
- Fruits
- Whole grains
- Legumes
- Nuts and seeds
- Low-fat dairy
- Fish and other lean protein sources

and limits:

- Excess sodium
- Highly processed foods
- Excess saturated fat
- Sugary beverages
- Excess refined carbohydrates

Regular Physical Activity

Regular physical activity can improve:

- Cardiovascular fitness
- Insulin sensitivity
- Body weight
- Vascular function
- Stress regulation

Examples include:

- Normal walking
- Moderate aerobic exercise
- Yoga

Exercise should be individualized according to age, gender, BP severity, and existing cardiovascular disease. Combining a healthy diet with regular moderate exercise can improve blood pressure control. Physical activity keeps the balance between nutrition and drainage, and regular physical activity improves cardiovascular health and lowers mortality compared with a sedentary lifestyle.

Physical activity keeps away other risk factors that are harmful not only for cardiovascular health but for general well-being as well, like obesity, lower lung capacity, diabetes, and many more. Apart from this, physical activity helps to release dopamine from the brain, that improve

cognitive function of brain, reduces stress, and helps manage blood pressure.

Limiting Alcohol and Caffeine

Any kind of beverages or coffee and cold drink contain stimulant which promote sympathetic activity and imbalance hormones and electrolytes, leading to hypertension or other cardiovascular diseases.

Quitting Smoking

Smoking affects cardiovascular health adversely. Nicotine causes blood vessels to constrict, narrowing them and increasing the workload on the heart. Quitting smoking can therefore be an important part of an overall strategy to improve health and reduce cardiovascular risk. The long-term habit of smoking is difficult to quite but there is no shortcut or alternative to it. If one wants to be healthy, he/she will have to quit smoking. The gradual and sustained efforts can lead to meaningful improvements in health. Smoking can reduce the risk of poor blood pressure control, heart disease, stroke, and lung cancer.

The Importance of a Healthy Diet

Poor dietary habits lead to unhealthy increases in blood pressure, usually in adulthood when blood pressure commonly tends to rise as part of the aging process. Improving dietary habits is one of the main recommendations for preventing or managing high blood pressure. Following a healthy, balanced, and low-fat dietary pattern and high fiber rich diet can play an important role in blood pressure control.

Choose a Healthy and Balanced Diet

A diet intended to support healthy blood pressure should include plenty of:

- Fruits
- Vegetables
- Low-fat dairy foods
- Fiber-rich foods
- Calcium-rich foods
- Potassium-rich foods
- Magnesium-containing foods
- Moderate amounts of protein

The diet should also limit:

- Saturated fats
- Trans fats
- Excess dietary cholesterol

Foods That May Be High in Sodium

To help control sodium intake, it may be useful to limit high-sodium foods or select lower-sodium alternatives.

Examples include:

- Ketchup
- Garlic salt
- Onion salt
- Seasoned salts
- Lemon pepper
- Meat tenderizers
- Monosodium glutamate (MSG)

Salted Snack Foods

Examples include:

- Salted peanuts
- Pretzels
- Pork rinds
- Tortilla chips
- Corn chips

Soups

- Instant soups
- Regular canned soups

Pickled and Preserved Foods

Examples include:

- Olives
- Sauerkraut
- Pickles
- Relish
- Pickled herring

Processed and Cured Meats

These may include:

- Bacon
- Bologna
- Hot dogs
- Ham

Dairy Products

Some cheese spreads and processed cheeses may contain considerable amounts of sodium.

Drinks

Certain beverages, such as club soda and some flavored sodas, may also contribute sodium.

Cereals and Ready-to-Eat Foods

High-sodium products may include:

- Instant hot cereals
- Some ready-to-eat breakfast cereals
- Boxed rice or potato mixes
- Macaroni and cheese products
- Frozen dinners

Read Food Labels Carefully

When purchasing packaged foods, look for products described as:

- Low sodium
- Very low sodium
- Salt-free

It is also useful to check ingredient lists for sodium-containing compounds, including:

- Sodium nitrite
- Sodium propionate
- Disodium phosphate
- Sodium sulfate
- Monosodium glutamate

- Sodium benzoate
- Sodium hydroxide

Reading nutrition labels can help identify foods that may contribute a large amount of sodium to the daily diet.

Lower-Sodium Eating Habits

Several practical changes can help reduce sodium consumption:

- Avoid adding unnecessary salt while cooking or preparing meals.
- Use herbs, spices, and other flavorings instead of excess salt.
- Avoid keeping a salt shaker on the dining table.
- Do not routinely add extra salt to salads or prepared foods.
- Use flavorings such as chili, ginger, herbs, and lemon juice.
- Select low-sodium breakfast cereals.
- Choose fresh or low-sodium soups instead of regular canned varieties.

Reducing sodium intake can contribute to better blood pressure control. Maintaining blood pressure within a healthy range may also help lower the risk of complications involving the heart and kidneys.

Maintain a Healthy Weight

If you are overweight, gradual weight reduction may help lower blood pressure. Body Mass Index (BMI) is one measurement commonly used to assess the relationship

between body weight and height. However, weight goals should also take into account other individual factors.

The best approach is usually to lose weight gradually through a balanced diet and regular physical activity rather than through extreme or rapid dieting.

Exercise and Blood Pressure Control

Regular physical activity can help with weight management and may also contribute directly to improved blood pressure control.

Exercise strengthens the heart and can help it pump blood more efficiently. When the heart performs its work more efficiently, less strain may be placed on the circulatory system.

People who are beginning an exercise routine can start gradually, for example with regular walking, and then progress to other aerobic activities.

Useful forms of physical activity include:

- Walking
- Swimming
- Cycling
- Jogging

Regular exercise can also help individuals achieve and maintain a healthy body weight. The physical activity recommendations described in the original material suggest approximately 30 to 60 minutes of moderate physical activity per day on most days of the week, along with vigorous or strength-related activities several times per week.

The amount and type of exercise should be appropriate for an individual's age, fitness level, and medical condition.

Calcium, Potassium, Magnesium, and Other Dietary Factors

A healthy diet that provides adequate amounts of important nutrients, including calcium, potassium, and magnesium, may support cardiovascular health and blood pressure management. The original material also mentions fish oils as a dietary factor that may be beneficial in supporting cardiovascular health.

Dietary changes should be individualized, particularly for people with kidney disease or other medical conditions that may affect the safe intake of potassium or other nutrients.

Sesame Oil and Blood Pressure

The original discussion highlights sesame oil as a potential dietary factor associated with blood pressure reduction when used in place of some other edible oils.

Sesame oil contains a substantial proportion of polyunsaturated fatty acids, and these components may influence cardiovascular health and blood pressure.

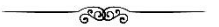
However, changing the type of cooking oil alone should not be considered a replacement for prescribed treatment or other established lifestyle measures.

The Importance of Support

Support from family and friends can make healthy lifestyle changes easier to maintain. Loved ones may encourage a person to follow medical advice, adopt healthier eating

habits, attend medical appointments, or participate in physical activities. If additional support is needed, joining a support group may also be helpful. Connecting with others who are facing similar challenges can provide encouragement, emotional support, and practical ideas for managing high blood pressure.

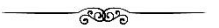
Herbal management of hypertension



Below, I have mentioned the herbs that can be used to treat hypertension, along with the adult dose and benefits.

Herbs	Scientific name	Adult dose	Benefits
Hibiscus/roselle	*Hibiscus sabdariffa*	1/2 tsp tea extract/day	Mild reduction in high blood pressure
Garlic	*Allium sativum*	1-2 clove/day	Decrease high BP and improve cardiovascular health.
Celery seed	*Apium graveolens*	1-1.5 g/day	Reduce the risk of CHD as well as reduce high BP.
Sarpgandha	*Raulfia serpentina*	Powder 250 mg/day	Reduce sympathetic activity, produce calming effect as well as reduce high BP.
Ginger	*Zingiber officinale*	1-3 g/day	Produce vasodilation and decrease high BP immediate.
Blackseed/kalonji	*Nigella sativa*	Powder 1-2 g/day	Lower high systolic blood pressure

Naturopathy treatments for hypertension



1.Hydrotherapy :

Hot Foot and Arm Bath for Hypertension

A **hot foot and arm bath** is a hydrotherapy technique used in naturopathic practice where both hands and legs up to the knees are placed in warm water 40 to 42 degree Celsius) for 20-30 minutes to lower high blood pressure.

Possible Mechanism of Action

Application of warm water
↓
Dilatation of peripheral blood vessels
↓
Increased circulation to the extremities
↓
Relaxation and possible reduction in sympathetic stimulation
↓
Possible decrease in peripheral vascular resistance
↓
Reduction in blood pressure

Potential Benefits

- Produces a feeling of relaxation and comfort.
- May improve blood circulation in the peripheral parts of the body.
- Can help reduce muscular tension and stress.
- Reduces high blood pressure.

Cold compress on nape of the neck

A cold compress on the nape of the neck is a hydrotherapy technique where an ice-filled bag is kept over the nape of the neck and upper back for 10 to 15 minutes to lower the blood pressure. The possible mechanism behind it includes the stimulation of the vagus nerve, which runs behind the neck. A sudden cold stimulus can stimulate this cranial nerve, which acts as the main highway for the **parasympathetic nervous system.** Activating the parasympathetic response helps counteract the **sympathetic nervous system.** By reducing acute stress or anxiety, it can reduce a stress-induced spike in heart rate and blood pressure. Cold exposure on the head and neck region can trigger mild reflex responses similar to the **mammalian diving reflex**, slowing the heart rate and stabilizing overactive autonomic responses.

Acupuncture

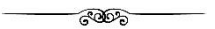
Acupuncture is used in the management of hypertension. Some of the commonly selected acupuncture points include **LI11 (Quchi)**, located around the outer aspect of the elbow; **ST36 (Zusanli)**, situated below the knee; **LR3 (Taichong)**, found on the upper surface of the foot between the first and second toes; **PC6 (Neiguan)**, located on the inner forearm close to the wrist; **GB20 (Fengchi)**, situated at the back of

the neck beneath the base of the skull; and **KI3 (Taixi)**, located near the inner aspect of the ankle.

Stimulation of these acupuncture points activates sensory nerve pathways that transmit signals to the spinal cord and brain. This stimulation may influence the **autonomic nervous system** and may help reduce excessive sympathetic nervous system activity. Consequently, it promotes relaxation and produces changes in heart rate and vascular tone. These responses may contribute to a reduction in peripheral vascular resistance and may result in a **modest decrease in blood pressure in some individuals**.

In addition, acupuncture may promote **relaxation and overall well-being**, help reduce **stress and anxiety**, and support the regulation of autonomic nervous system activity. When combined with appropriate lifestyle measures and conventional medical treatment, it may provide supportive benefits for blood pressure management. However, acupuncture should be regarded as an **adjunctive therapy** and should not be used as a replacement for prescribed antihypertensive medication or regular medical supervision.

30-day cardiovascular disease reversal protocol



Based on the clinical practice experience and following a number of CAD disease reversal patients, I have developed the diet and lifestyle modification protocol of 30 days that can reverse any cardiovascular disease potentially or prevent it. The protocol can be followed easily from home.

Day 1 to 5

This phase of the protocol promotes elimination of toxins from the body through four eliminative channels, viz. urine, stool, sweating, and exhalation.

Early morning(6:00 am) – after waking up, around 250-300 ml leukwarm water+1/2 squeezed lemon.

Then go for daily routine. The mouth cleaning should be done with a natural neem or sesame stick, followed by oil pulling, where 2 tablespoons of cold-pressed sesame oil or coconut oil is put in mouth and is rotated inside it for 3- 5 minutes and then spitted. After that, gargle with lukewarm water + 1 gram turmeric powder.

6:30 am- 7:15 am – normal physical activity like walking, jogging, cycling, or yoga and pranayama.

7:30 am- 8:00 am(breakfast) – 300- 500 ml juice of apple+kiwi+grapes(all should be in equal amount)

11:00 am(midday) – 250 ml of tender coconut water.

12:30 pm-1:00 pm(Lunch) – weight of the person in kg*10 grams of salad(onion, radish, carrot, beetroot, tomato and green leaves) + 200 to 300 grams of boiled vegetables(cucumber, broccoli, pumpkin, cauliflower) any one of the above vegetables or mix of 3 can be included in lunch + 30 to 50 grams of coconut chutney.

4:00 pm(snack) – 1 tablespoon arjuna powder boiled in 300 ml of water until it becomes half, then should be taken without adding sugar.

6:00 pm-7:00 pm(Dinner) – 300 to 400 grams of vegetable soup(cucumber, broccoli, pumpkin, cauliflower) any one of the above vegetables or mix of 3 can be included) + 30 to 50 grams of coconut chutney.

Before bed - 1 tablespoon arjuna powder boiled in 300 ml of water until it becomes half then should be taken without adding sugar.

Day 6 to 10

This is the phase where smoothening effects on vital organs are produced after passing the eliminating phase.

Early morning(6:00 am) – after wake up around 250-300 ml leukwarm water+ 30 ml amla juice

Then go for daily routine. The mouth cleaning should be done with a natural neem or sesame stick, followed by oil pulling, where 2 tablespoons of cold-pressed sesame oil or coconut oil are put in the mouth and rotated inside for 3- 5

minutes and then spit. After that, gargle with lukewarm water + 1 gram turmeric powder.

6:30 am- 7:15 am – normal physical activity like walking, jogging, cycling, or yoga and pranayama.

7:30 am- 8:00 am(breakfast) –300 to 400 grams of fruits(orange, kiwi, peer, guava, apple)

11:00 am(midday) – 250 ml of tender coconut water.

12:30 pm-1:00 pm(Lunch) – 1 normal bowl (100 – 150 grams) boiled vegetables (cucumber, broccoli, pumpkin, cauliflower) any one of the above vegetables or mix of 3 can be included in lunch + 25 grams rice + 1 cup(50-70 ml) moong daal + weight of the person in kg*5 grams of salad(onion, radish, carrot, beetroot, tomato and green leaves). The salad should be consumed 20 minutes before lunch.

4:00 pm(snack) – 3 grams arjuna powder + 5 grams ginger + 1 gram cinnamon powder boiled in 300 ml of water until it becomes half, then should be taken without adding sugar.

6:00 pm-7:00 pm(Dinner) – 300 to 400 grams of vegetable soup(cucumber, broccoli, pumpkin, cauliflower); any one of the above vegetables or a mix of 3 can be included) + 30 to 50 grams of coconut chutney

Before bed - 3 grams arjuna powder + 5 grams ginger + 1 gram cinnamon powder boiled in 300 ml of water until it becomes half, then should be taken without adding sugar.

Day 11 to 25

This phase of the protocol produces smoothing and constructive effects on the cardiovascular system.

Early morning(6:00 am) – after wake up around 250-300 ml leukwarm water+ 30 ml amla juice

Then go for daily routine. The mouth cleaning should be done with natural neem or seesam stick followed by oil pulling where 2 tablespoon of cold pressed sesame oil or coconut oil is put in mouth and is rotated inside it for 3- 5 minutes and then spitted. After that, gargle with lukewarm water + 1 gram turmeric powder.

6:30 am- 7:15 am – normal physical activity like walking, jogging, cycling, or yoga and pranayama.

7:30 am- 8:00 am(breakfast) –300 to 400 grams of fruits(orange, kiwi, peer, guava, apple) + 2 whole night soaked almond + 2 walnuts + 2 soaked apricot.

11:00 am(midday) – 250 ml of tender coconut water.

12:30 pm-1:00 pm(Lunch) – 1 normal bowl (100 – 150 grams) boiled vegetables (cucumber, broccoli, pumpkin, cauliflower) any one of the above vegetables or mix of 3 can be included in lunch + 30 grams rice + 1 cup(70- 100 ml) moong daal + weight of the person in kg*5 grams of salad(onion, radish, carrot, beetroot, tomato and green leaves). The salad should be consumed 20 minutes before lunch.

4:00 pm(snack) – 3 grams arjuna powder + 5 grams ginger + 1 gram cinnamon powder boiled in 300 ml of water until it becomes half, then should be taken without adding sugar.

6:00 pm-7:00 pm(Dinner) – 300 to 400 grams of vegetable soup(cucumber, broccoli, pumpkin, cauliflower) any one of the above vegetables or mix of 3 can be included) + 30 to 50 grams of coconut chutney + 1 chapati of corn flour.

Before bed – 2-3 grams of sarpgandha powder boiled in 300 ml of water until it becomes half, then should be taken without adding sugar.

Day 26 to 30

This phase of the protocol repeats the elimination of toxins from the body through four eliminative channels, viz. urine, stool, sweating, and exhalation.

Early morning(6:00 am) – after waking up, around 250-300 ml leukwarm water+1/2 squeezed lemon.

Then go for daily routine. The mouth cleaning should be done with a natural neem or sesame stick, followed by oil pulling, where 2 tablespoons of cold-pressed sesame oil or coconut oil are put in the mouth and rotated inside it for 3-5 minutes and then spit. After that, gargle with lukewarm water + 1 gram turmeric powder.

6:30 am- 7:15 am – normal physical activity like walking, jogging, cycling, or yoga and pranayama.

7:30 am- 8:00 am(breakfast) – 300- 500 ml juice of apple+kiwi+grapes(all should be in equal amount)

11:00 am(midday) – 250 ml of tender coconut water.

12:30 pm-1:00 pm(Lunch) – weight of the person in kg*10 grams of salad(onion, radish, carrot, beetroot, tomato and green leaves) + 200 to 300 grams of boiled vegetables(cucumber, broccoli, pumpkin, cauliflower) any one of the above vegetables or mix of 3 can be included in lunch + 30 to 50 grams of coconut chutney.

4:00 pm(snack) – 1 tablespoon arjuna powder boiled in 300 ml of water until it becomes half, then should be taken without adding sugar.

6:00 pm-7:00 pm(Dinner) – 300 to 400 grams of vegetable soup(cucumber, broccoli, pumpkin, cauliflower); any one of the above vegetables or a mix of 3 can be included) + 30 to 50 grams of coconut chutney.

Before bed - 1 tablespoon arjuna powder boiled in 300 ml of water until it becomes half, then should be taken without adding sugar.

Avoid

- Refined oil, mustard oil, sunflower oil, rice bran oil. Use coconut oil in cooking.

-Any form of wheat should be avoided, like wheat flour, maida, suji, biscuit and namkeen.

-Milk, curd, poultry chicken or eggs, fast food, cold drinks

Note:

-Dinner should be finished before sunset

-Take a sun bath for at least 30 minutes daily around 10:00 am to 11:00 am(in summer, this time may change to around 7:00 am to 8:00 am)

Once the patient follows the above protocol honestly for 30 days. It will show improvement in lipid profile and vitamin C levels, which are very important for cardiovascular health; it will reduce overweight, reduce cellular inflammation, decrease high BP, and he/she can check other cardiovascular health markers.

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